



## Technology configuration inventory

Name:	Rishabh Prasad
Community (UN SD goal):	Goal 11 – Sustainable Cities and Communities
Date:	2021-10-05

### Instructions

It is useful to inventory the current technology configuration of the community, i.e., the current technology that the people working, learning, advancing knowledge (etc.) in the specific area you are engineering software for are using, as a way to understand the community better and what matters to them better. If yours is a new community, it may not have any specific technology yet, but even for brand new communities, the current configuration may not be empty, for instance if general tools like email or phone are going to be used. You can use a version of the table on the next page to inventory and analyze the current configuration of your community:

1. Get the big picture. Research the area and make a list of all the platforms and stand-alone tools in your community's configuration as best you can
2. For each platform, list the tools and check the ones that are being used. Why are some not being used? Are there duplicates? Are there issues around integration between tools?
3. To the left, make a note of which community activities/orientations the tools currently support in your community
4. To the right, identify the key features of tools. Are some of these features commonly or rarely used? What are the reasons for that?
5. Assess actual tool use if you can. Identify which are dominant and which are only used by smaller groups and individuals.

**NOTE:** Add new rows as needed below. Please know your search should be as exhaustive as possible given the area you are researching

Platform	Prairie Robotics		
Supported activities	Tools	Key features	Usage notes
Data Collection	Service Event Database	<ul style="list-style-type: none"> <li>- Each service event is a point of waste collection</li> <li>- Images of contamination</li> <li>- These occur automatically and for every bin that is collected</li> </ul>	<p>This data is collected automatically using the hardware embedded within the truck.</p> <p>Cameras present on the truck take images of the waste being dropped into the truck as well as coordinates for where the bin was picked up.</p> <p>The city uses this information to analyze whether a truck is contaminated or not as well as if the truck needs to be redirected to a landfill</p>



Contaminant Detection	Edge	<ul style="list-style-type: none"> <li>- The machine learning model which identifies the contaminants as they are dropped in the truck</li> </ul>	This is heavily relied upon to catch common contaminants which have been misplaced into recycling
-----------------------	------	---	---

Platform	City of Regina Recycling		
Supported activities	Tools	Key features	Usage notes
CartSmart	Postcard	<ul style="list-style-type: none"> <li>- An automatically generated "OOPS" post card is created and sent to households where contamination was detected</li> <li>- Card contains an image with annotations on which contaminants were detected</li> </ul>	This is a new program and just beginning to gather information on common contaminants and to encourage people to avoid placing these items in their recycling

Stand-alone tool	UR StreamSight		
Supported activities	Tool	Key features	Usage notes
Mapping Detected Contaminants	Visual Interface	<ul style="list-style-type: none"> <li>- Displays collection points and individual points of contamination</li> <li>- Annotated Images of what the common contaminant is</li> </ul>	<p>Allows the user to view each household which has placed a contaminant in their recycling</p> <p>It is a quick method to visualize who placed as contaminant and what the contaminant was</p>

Stand-alone tool	Waste Wizard		
Supported activities	Tool	Key features	Usage notes
Waste and Recyclables database	Search tool	<ul style="list-style-type: none"> <li>- Allows users to quickly see whether an item is recyclable or not</li> </ul>	Allows users to quickly see whether an item is recyclable or not and provides them guidance on its method of disposal.



		<ul style="list-style-type: none"><li>- Shows user where the item can be disposed</li></ul>	<p>This is used by the City of Regina to lower contamination rates and give the public an easy way to avoid confusion</p> <p>Unfortunately, this is not very advertised, and most people do not even know this tool exists.</p>
--	--	---	---