

3.1.3 Demand for Existing Roles

Career levels referenced throughout this paper are defined as follows according to SkillsFuture Singapore (SSG).

As seen below, these are the 3 tracks under Waste Management sector such as Waste Collection, Materials Recovery and Treatment and Disposal. We will analyse the degree of impact on job roles in these categories when key notable trends like AI, Data Analytics and Automation takes place in the near future.

Trends/Job Families	Waste Collection				Materials Recovery			Treatment and Disposal		
	Waste and Recyclables Collection Attendant	Weighbridge Operator	Mechanical Operator/Waste and Recyclables Collection Truck Driver	Operations Director/General Manager	Waste Recycling Sorter	Waste Recycling Machine Operator	Operations Director/General Manager	Waste Treatment Worker/Waste Disposal Worker	Waste Treatment Executive/Waste Disposal Executive	Operations Director/General Manager
Autonomous Vehicles	▶	▶	▼	▶	▲	▼	▶	▲	▶	▶
Wireless Sensor	▼	▼	▲	▶	▼	▲	▶	▼	▲	▶
RFID	▲	▶	▲	▶	▲	▶	▶	▲	▲	▶
Artificial Intelligence (AI)	▼	▲	▼	▲	▼	▲	▶	▼	▲	▶
Big Data and Data Analytics	▶	▲	▲	▲	▶	▲	▲	▶	▲	▲
Outsourcing	▼	▼	▼	▲	▼	▼	▲	▼	▼	▲
Sustainability	▶	▲	▼	▲	▶	▲	▲	▶	▲	▲

Figure 6: Demand for Existing Roles

▼ Skill redundancy or threat of job loss      ▲ Opportunity for skill adjacency, wage progression or increase in mobility demand      ▶ Nominal or minimal impact

For the **Waste Treatment Executive**, there is an opportunity for skills expansion when new emerging areas such as Wireless Sensor and RFID, AI and Data Analytics are adopted. This will improve efficiency of resources and uplift the skills of **Drivers** in the use of these technologies in their daily routine. There is an opportunity for skill adjacency here as well as the type and profile of skilled resources with advanced knowledge of technology may come from outside the sector and augment the growth in the sector.