



Work Attachment Experience with Ace Green Recycling

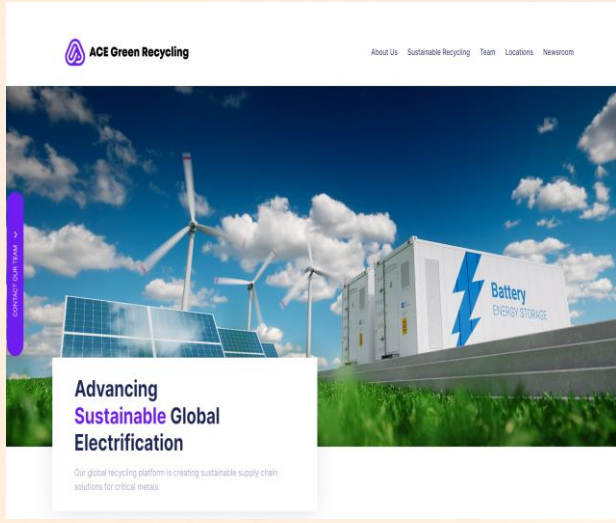
from 03 July 2023 to 14 July 2023

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My Work Attachment Story

Chapter 1: the Setting and the Catalyst

About the Company



ACE Green Recycling is an innovative recycling platform providing sustainable, end-of-life solutions for batteries. The company is working with players across the battery ecosystem to create localised circular solutions to ensure critical battery materials remain within the countries generating battery wastes.

ACE Green Recycling is an e-waste company that was established in 2019.

Its aims are to

1. guarantee supply for lead recycling, and
2. make profit.

The company sees high potential for growth for the industry in Singapore as about 97% of e-waste in Singapore is unrecycled. Battery recycling is considered the most pollutive industry in the world as it is unregulated and often includes breaking down battery cases, which results in the spilling of acid and lead dust onto the ground. The illegal battery recycling process also includes smelting lead in open air furnaces which emit toxic fumes and dust, contaminating the surrounding neighbourhoods.

ACE Green Recycling is in a relatively new industry which aims to use environmentally friendly methods of battery recycling, specialising in hydro recycling where the end product of the battery recycling process is water. The company collaborates with other companies around the world, e.g., Shynder, a French elevator company, to turn hazardous battery waste into metal for other purposes.

My Work Attachment Story

Chapter 1: the Setting and the Catalyst

Why Embark on This TWA+ Experience

I embarked on this TWA+ experience to

1. gain a deeper insight on the recycling scene in Singapore,
2. understand and learn how e-waste is being dealt with,
3. look at what is being done currently in terms of recycling in Singapore, and
4. more effectively advise my students on the job prospects in this growing industry.

My Impression of This Industry

This industry is one with a lot of potential to grow, especially with Singapore's move towards increased adoption of electric motor vehicles in the next 10 years. This is in line with the Singapore Green Plan 2030 which involves a strong push to electrify our vehicle population. This means that Singapore has the potential to be a part of the growing battery ecosystem. With more electrification, we will recycle more batteries within our own shores, providing more job opportunities for Singaporeans in the future.

The industry itself provides many potential areas of growth, e.g., sourcing, procurement, sales and innovation in terms of obtaining and dealing with the raw materials for batteries or used batteries needed to fuel this recycling endeavour. This unlocks many job prospects relating to this sustainability driven industry.

My Work Attachment Story

Chapter 2: the Plot

Experience at the Organisation

The company works in collaborative workspaces as it does not have an office space. I was working remotely both onsite and offsite. This was a refreshing change from my usual work arrangement.

Things I have learnt during the two-week work attachment:

1. The impetus for the company and their place in the global battery recycling ecosystem
2. Introduction to the lead and lithium markets
3. Introduction to the main components and drivers of recycling
4. Introduction to the technology the company utilises
5. Innovations in battery recycling
6. Value proposition of the company
7. Role Singapore can play in the regional battery recycling scene

Market Research on Battery Recycling Scene in Singapore

The market research component of the work attachment gave me more insights into the battery recycling scene in Singapore and its potential to generate jobs for Singaporeans in the future. Through the research, I found out about (1) the state of battery recycling in Singapore, and (2) the landscape of battery recycling in Singapore, with both its challenges and opportunities.

My Work Attachment Story

Chapter 2: the Plot

Learning from the Organisation

I had the opportunity to present my learning from my attachment to the Executive Vice-President (EVP), Supply Chain & Business, Mr Siddharth Roy.

1. I learnt who the other key players in the Singaporean ecosystem for battery recycling are.
2. I identified and ranked the local players the company can collaborate on recycling projects.
3. I learnt about key media reporting on recycling and/or sustainability initiatives.
4. I learnt about some key economic and governmental policies that affect battery recycling in Singapore.

This is a relatively young company which wants to venture further into the Singapore battery recycling scene. The research I did for the company helped them to uncover some other local industry players, which could potentially be their future partners or provide other business opportunities. Working at the company helped me understand that the hurdles faced by foreign business entities. They must continuously value-add to their products and services while being watchful of competition from existing local industry players.

I was able to glean insights about the various jobs available in the industry which would be relevant for my students who are interested in pursuing a career in this industry in the future.

My Work Attachment Story

Chapter 3: the Resolution



From left to right: Siddharth Roy (EVP Supply Chain & Business), Ms Xie-Low Huiru (Jurong Secondary School), Aaron Wee (VP Strategy & Investments), Ms Natasha Supa'at (Kranji Secondary School)

Preparing Students for the Workplace of Tomorrow

It is important to get students to deal with uncertainties and to always be able to challenge assumptions.

This industry that I had a glimpse of is constantly changing due to innovations and technological advancements. To thrive in future workplaces, our students need to think critically, be more receptive to changes, and be flexible to adapt effectively to these changes.

My Work Attachment Story

Chapter 3: the Resolution

Applying My Learning

Presenting my work attachment experience to my students

1. Based on my understanding of the industry through my experience, I presented to my students the different educational requirements needed for the various jobs in the industry.
2. Remote working both off and onsite will be the possible mode of work for future workers.
3. With partners across the world, working at odd hours of the day and night will be something common.

Presenting my work attachment experience to my colleagues

As part of knowledge building as well as to encourage other staff to take part in the TWA+ programme, other TWA+ participants and I presented our experiences during our school's contact time (SCT). Our school leaders had been extremely supportive of staff embarking on the programme. Since we started in 2022, seven staff had the privilege to experience the work attachments in various industries and organisations.