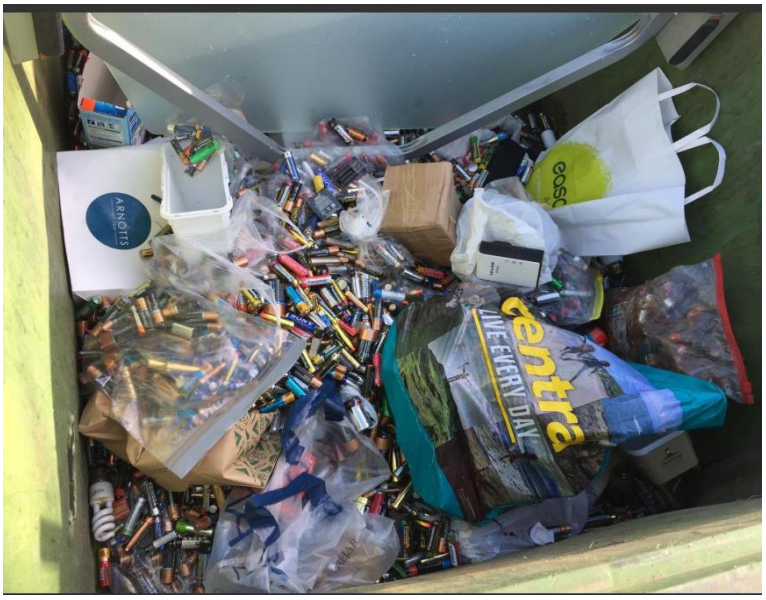
Short summary of business, organisation or profile of person

Castletroy College is co-educational secondary school based in Limerick. The school first opened in 2000 and currently enrols 1200 full time students, aged between 12 and 19 years. The school's mission is the 'holistic education of the individual, enabling students to become responsible, caring members of society as well as encouraging them to reach their full potential'

Initiatives to increase take back of waste batteries for recycling

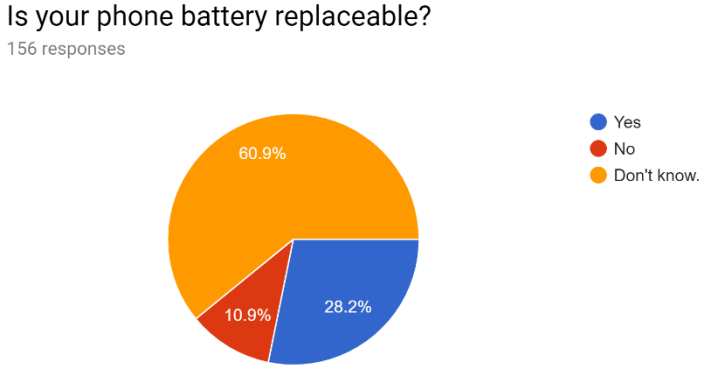
E-Mining@School is a collaborative educational project between University of Limerick and Castletroy College. The project promoted '**urban mining e-waste for Critical Raw Materials**' i.e. recycling electronic products. The project culminated in a **WEEE collection event,** the first ever to be held on the school grounds.

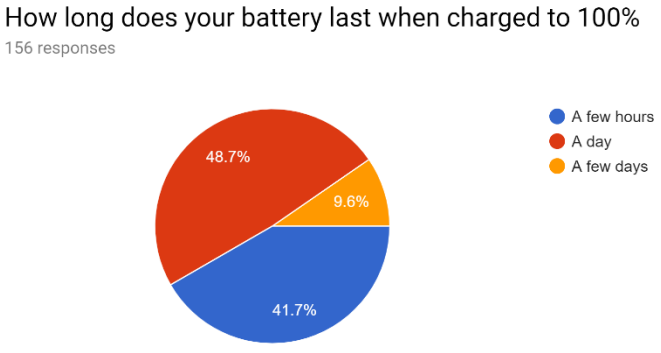


A team of 8 teachers and a UL research **collaboratively** co-created **a cross-curriculum pilot** they thought students to about the importance of creating a **Circular Economy for electronic products.** A key element of which is recycling. To ensure students were engaged with this subject they focused one product essential to teenagers, their **smartphones**.

This pilot "**E-Mining@School"** ran for **4 weeks** at the beginning of 2019. A cohort of **220 2nd year students** attended a total of **6,557 hours** of lessons on **urban mining e-waste**. These hours were delivered over **300 lessons** across 5 subjects - Science, Geography, Business, Technology and Civic, Social and Political Education (CSPE). All these lessons prepared students for finale of the project – the WEEE collection event.

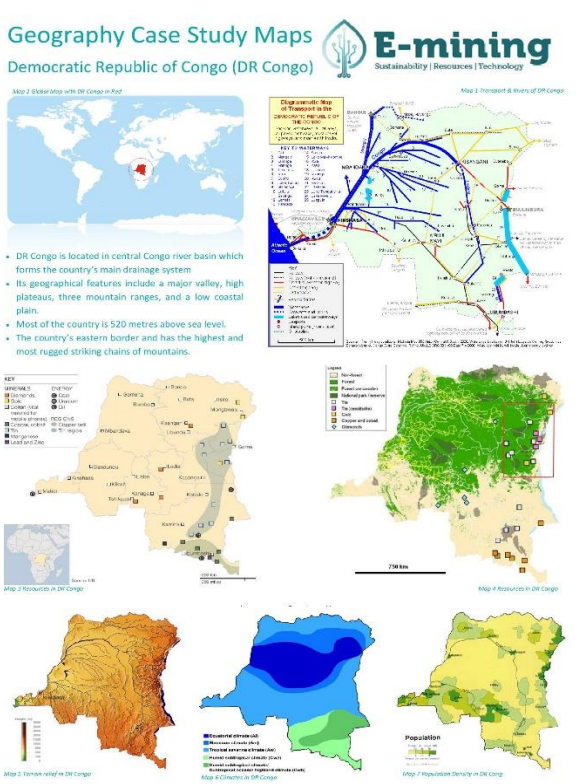
The E-Mining@School pilot launched with a pre-survey exploring students smartphone ownership, usage and behaviour. Students analysed the results as integrated lessons throughout the pilot. The 2 pie charts below show that the majority of students do not know if its possible to change the battery in their phones yet their batteries only last a few hours when fully charged. This could prompt them to want a new phone instead of replacing and recycling their current batteries.

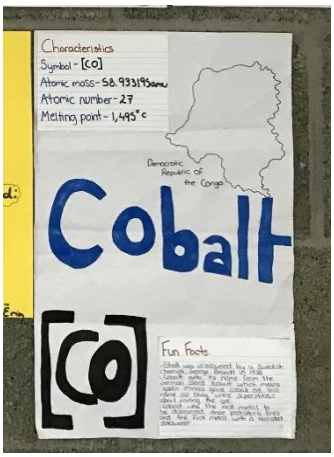


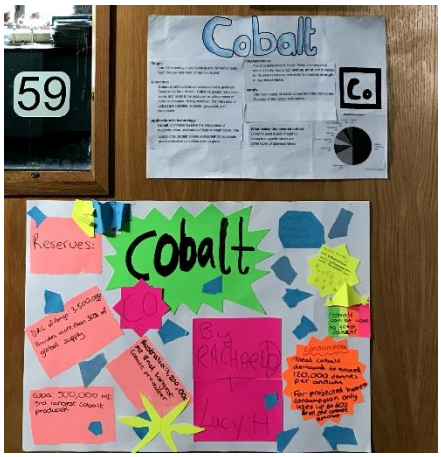


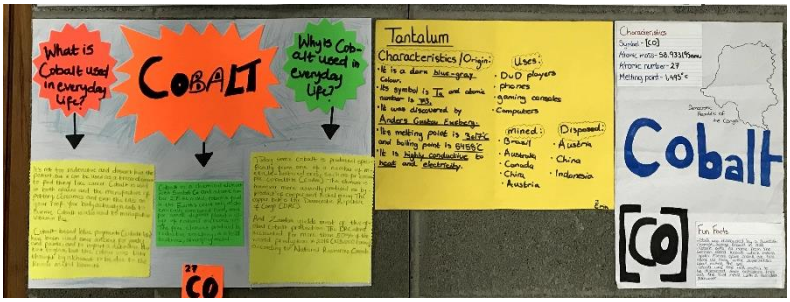
Lessons on smartphone batteries where threaded across several subjects such as:

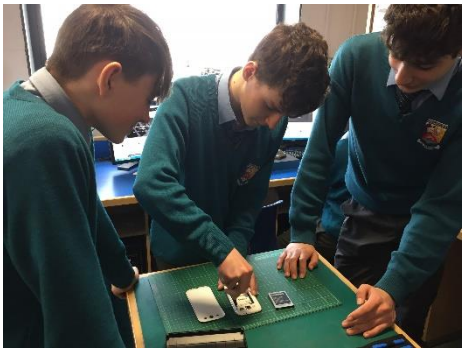
- Science research posters on CRMs such as cobalt
- Science lessons students conducted additional studies on their battery charging behaviour
- Geography case study on mining for cobalt in Democratic of Congo (50% of some batteries consists of cobalt which is a CRM)
- Technology lessons on how to replace batteries in smartphones which involved doing a smartphone teardown

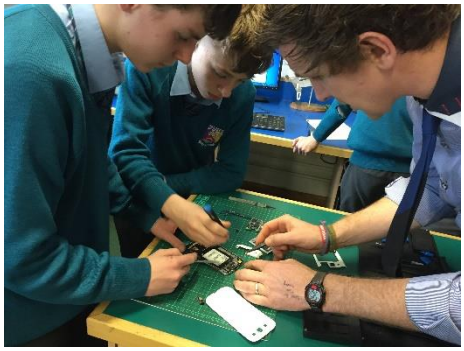












Increased recycling volumes as a result of the initiative (evidence to demonstrate this)

On the 2nd of March the E-Minging@School pilot held its finale - **WEEE collection event**. this was the first WEEE collection event ever held on school grounds. The marketing of this event was run by the students themselves in their **WEEE Champion Team.** The collection event was very successful and resulted in over **11 tonnes of WEEE** was collected of which there was **324 kg of batteries** collected

BATTERIES	Weight Kilos
Alkaline batteries	142
Lead Acid batteries	182
Total:	**324**

Involvement of staff and/or consumers or other stakeholders

Castletroy College partnered with **European Recycling Platform Ireland (ERP)** who ran the WEEE collection event. The school and ERP held a number of pre-event meetings as well as a scoping exercise on the school grounds to assess the best site layout and traffic flow for the WEEE collection. ERP also provided marketing support and training to the schools **WEEE Champion Team** to help them prepare their marketing campaign. The school also worked **Limerick City Council** preparing and marketing the event.

A **WEEE Champion Team** of 2nd year students at Castletroy College ran an extremely successful marketing campaign that involved

- **2 feature newspaper articles** in the Limerick Leader.
  https://www.limerickleader.ie/news/home/367050/recycle-right-castletroy-college-students-to-holdelectrical-wastedrop-off-day.html
  https://www.limerickleader.ie/news/home/370519/limerick-schools-second-years-organiserecycling-of-11-tonnes-of-electrical-waste.html
- A **radio interview** on the local Live 95 FM station https://www.live95fm.ie/on-air/shows/limerick-today/limerick-today-podcasts/february-2019/limerick-today-castletroy-college-hosting-a-waste/
- Promotion across **social media** platforms such as Facebook, Twitter and WhatsApp using the tag **#eminers**
  https://twitter.com/search?f=tweets&vertical=default&q=%40CastletroyC%20%23eminers&src=typd&lang=en-gb
  Videos during the event
  https://twitter.com/CastletroyC/status/1101776615590297605
  https://twitter.com/CastletroyC/status/1101902551811788801

Management of take-back/waste before collection

A few weeks before the WEEE collection event the WEEE champion team handed out promotional **3,000 leaflets with 20,000 WEEE stickers** attached. These stickers enable people to pre-emptively identify WEEE and batteries at home thus facilitating emotional divestment from their possessions.

Demonstrate service to the community

The WEEE Champion Team were **1st place winners** in the European wide EIT KIC Raw Materials School Competition. This competition considered the amount of work students put into promoting a WEEE collection event and the amount

of WEEE collected. In November 2019 the Team will share their success and experiences at the **'Raw Materials Week**' conference in Brussels.

Due to the success of the WEEE collection event and demand from the local community, Castletroy College is exploring the potential for an **annual event**. We are currently exploring how to combine the collection event with a wider could educational promotion on the importance of recycling, the potential of urban mining and the benefits of a Circular Economy.