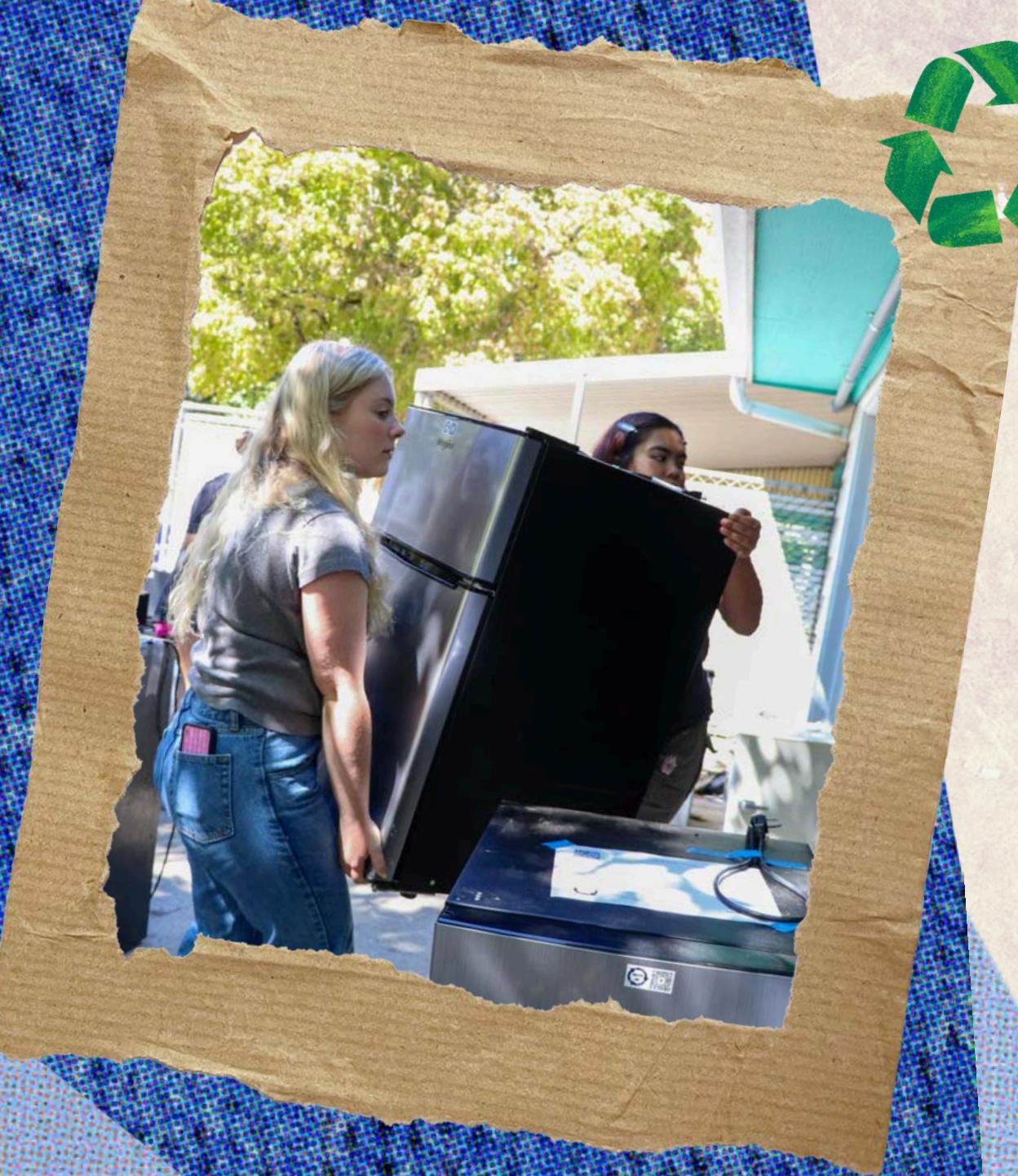


# Coolock

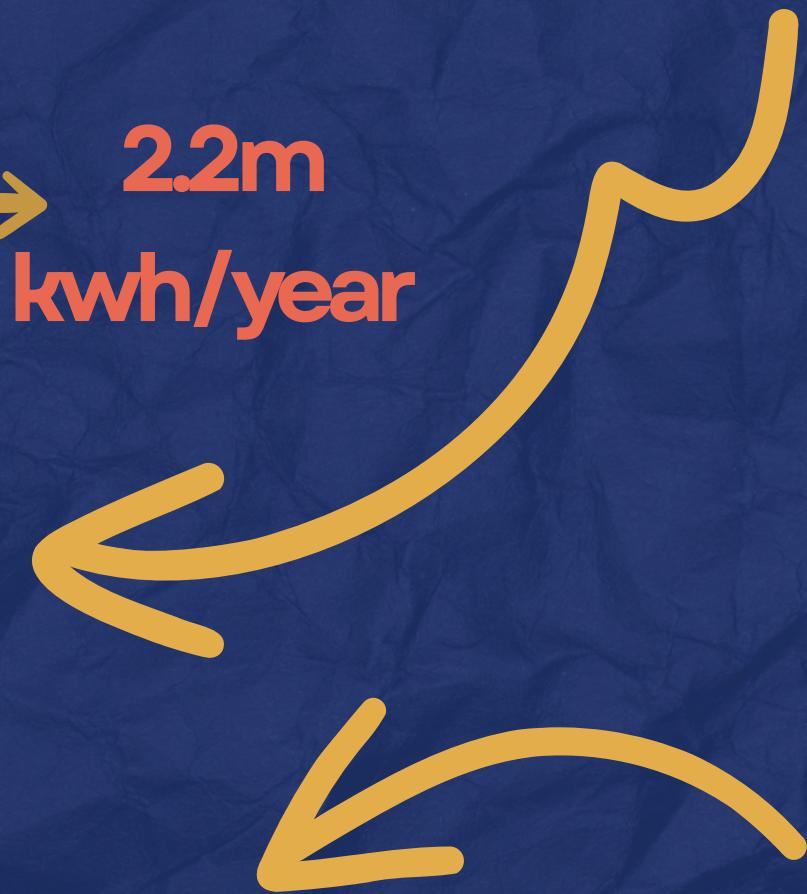
The Smart, Shared, and Sustainable fridge

**Team 1- NTU Entrepreneurship**



# WHY

7000 NTU  
students → 310  
kwh/year



## Mini-fridges are costly, noisy, and unsustainable

⚡ Energy Drain

📦 Bulky & Noisy

♻️ E-Waste

💰 Hidden Costs

## Fridges are part of student life

🌙 Late-Night Needs

🍎 Special Items

🏡 Community Reality

# What? - Our Solution



**Coolock**



Shared community fridge

Lockable compartments

Access with Pin-Code

Energy - efficient

Self cleaning



**Coolock**

# Benefits for Students & Universities



**saves  
students  
money**



**cuts  
electricity  
costs**

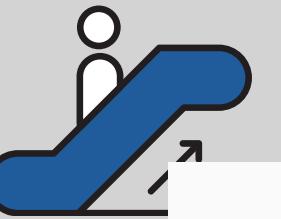


**reduced  
E-waste**



**modern  
organized  
eco-friendly**

# Our first steps



~5000 - 7000 USD



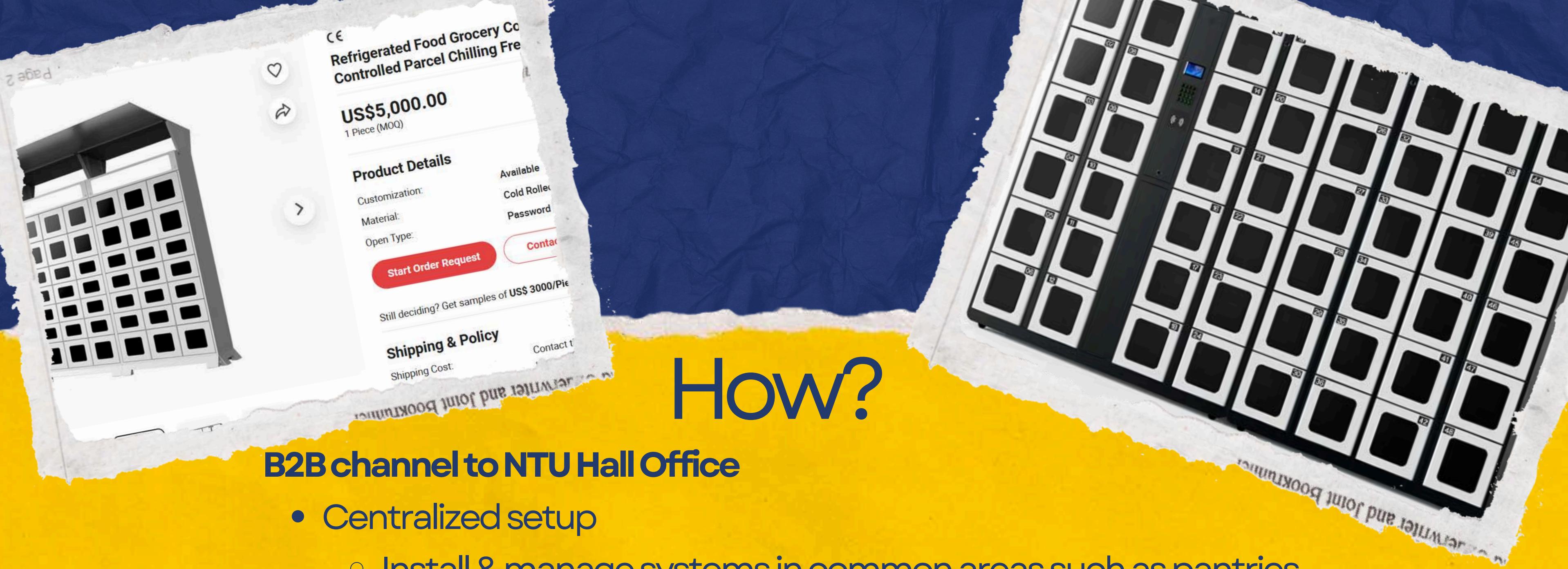
# Deployment and Installation

- Deliver and install units in hall kitchens, units will be associated with room number
- No software development needed - students set own pin, reset at end of semester
- Reset pin, cleaning, and maintenance provided at end of every semester
- On-site testing after installation to reduce need for storage

# Pricing

- We charge \$20 per month TOTAL per student/locker
- Students before Coolock pay \$20 JUST for electricity
- Simple, risk-free pricing for NTU as we handle electricity, maintenance, cleaning
- Same old pricing for students but now we also provide maintained fridge
- \$8 monthly profit/student, 40% profit (over 8 year fridge lifetime)





# How?

## B2B channel to NTU Hall Office

- Centralized setup
  - Install & manage systems in common areas such as pantries
- ~S\$20/month/locker - around S\$1000 for 48 locker fridge
- Providing long-term service fee, all inclusive in price
  - Maintenance
  - Cleaning
  - Technical Servicing
  - System Check

# Cost Structure



## Fixed Cost

Coolock fridge (36 unit) ~S\$6,500  
Shipping ~S\$1,000 - S\$1,500

## Variable cost

Storage ~S\$300+/mth (~100sqft)

<https://booking.storhub.com.sg/building/storhub-jurong-west>

## Revenue Stream

~S\$1000 /monthly lease  
~ package deal for maintenance  
For pilot, start with 1 fridge  
Breakeven on CapEx = 8 months

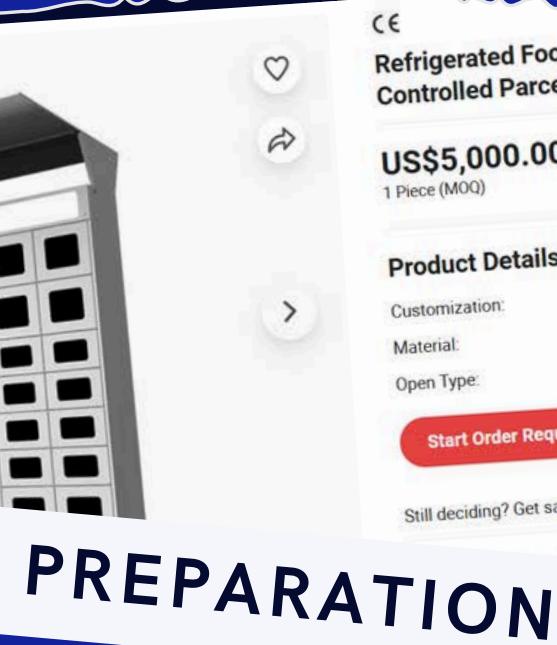
~Scale to 6-9 fridges (2-3 halls)~

# Milestones

actionable plans

90%  
student  
satisfaction

FEEDBACK



PREPARATION  
Liasing &  
Drafting budget



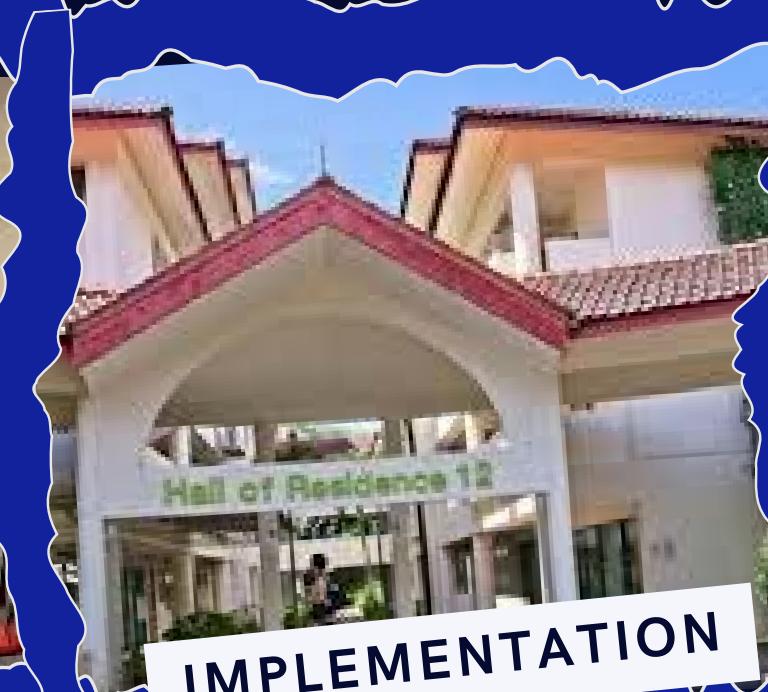
MANUFACTURING  
Prototyping



PILOT

Testing &  
Monitoring

1



IMPLEMENTATION

Partnerships with  
Halls (Admin Office)

8



SCALING

Outreach to  
multiple Hall

50<sup>+</sup>

# Who?

## Key partners

### Resource producers & providers

- Funding: NTU, Government, Private investment firms, Angel investors
- Coolock manufacturers: Hangzhou Dongcheng Electronics Co.

### Operations team

- Storage: Storage facility
- Maintenance: Technicians, Cleaning Crew
- Distribution and transport: Shipping partners, delivery drivers

## Customers

### Customer segments

- NTU students: exchange, full-time local, full-time international
- Hall offices
- Future businesses

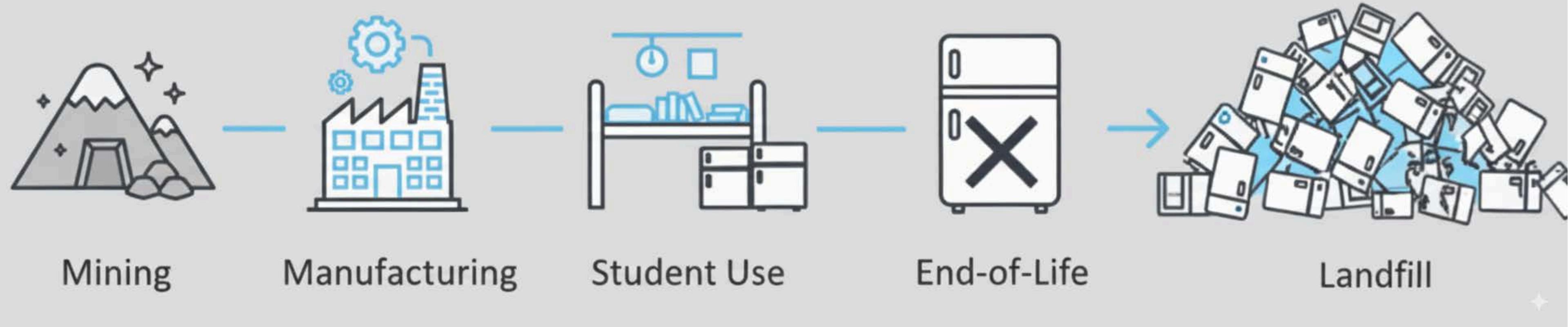
### Coolock Founders

- Logistics management
- Customer communication
- Research & Sourcing
- Marketing & Branding
- Innovation



# The Immediate Impact: Annual Energy Drain

**14000 students → 7000 fridges  
310 kWh → Reduce 75% electricity  
1.6 million kWh per year  
400 HDB flats!**



## The Inevitable Impact: The E-Waste Cycle

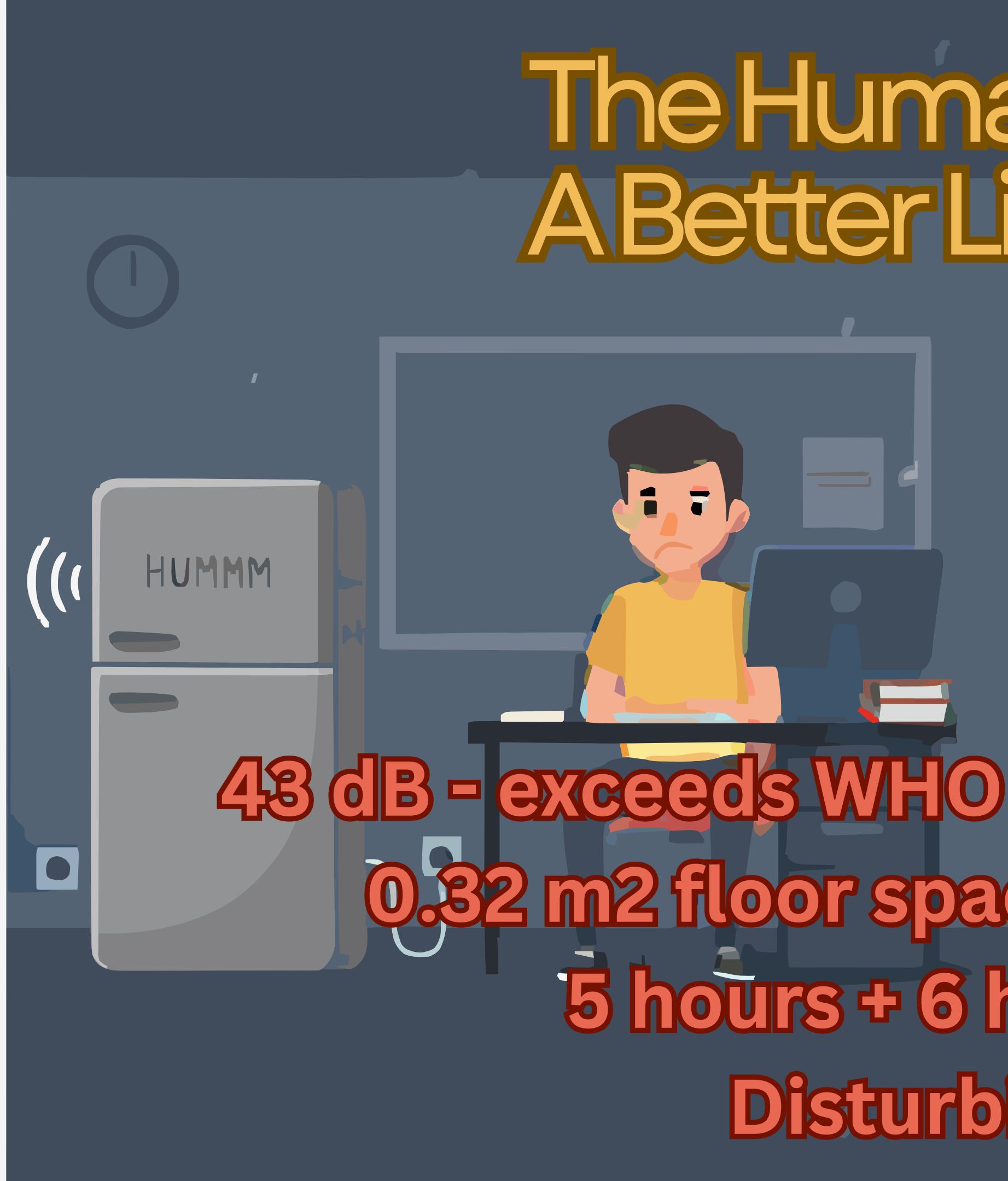
**7000 fridges / 8 year life span = 875 fridges**

**20kg per fridge → 19000kg e-waste per year (bus)**

**131000kg of CO<sub>2</sub> per year (21000 trees) + CFC**

**175 cubic meters of landfill (5 shipping container)** <sup>13</sup>

# The Human Impact A Better Living Space



43 dB - exceeds WHO guidelines by over 40%



0.32 m<sup>2</sup> floor space from 8 m<sup>2</sup> → 1/20

5 hours + 6 hours annually

Disturbing smells



**Coolock**  
Smart. Sustainable. Simple.