
Who we are

Rediscovery Centre

The National Centre for the
Circular Economy

Member of





Our Mission

To lead Ireland's transition to a circular economy and sustainable future



Our Vision

A society that is fair, inclusive and thrives within natural resource limits

DIRECT LIFE Project



A digital transformation for circular communications, marketing, citizen engagement

Exemplary low carbon website

CRM system for marketing & user journeys

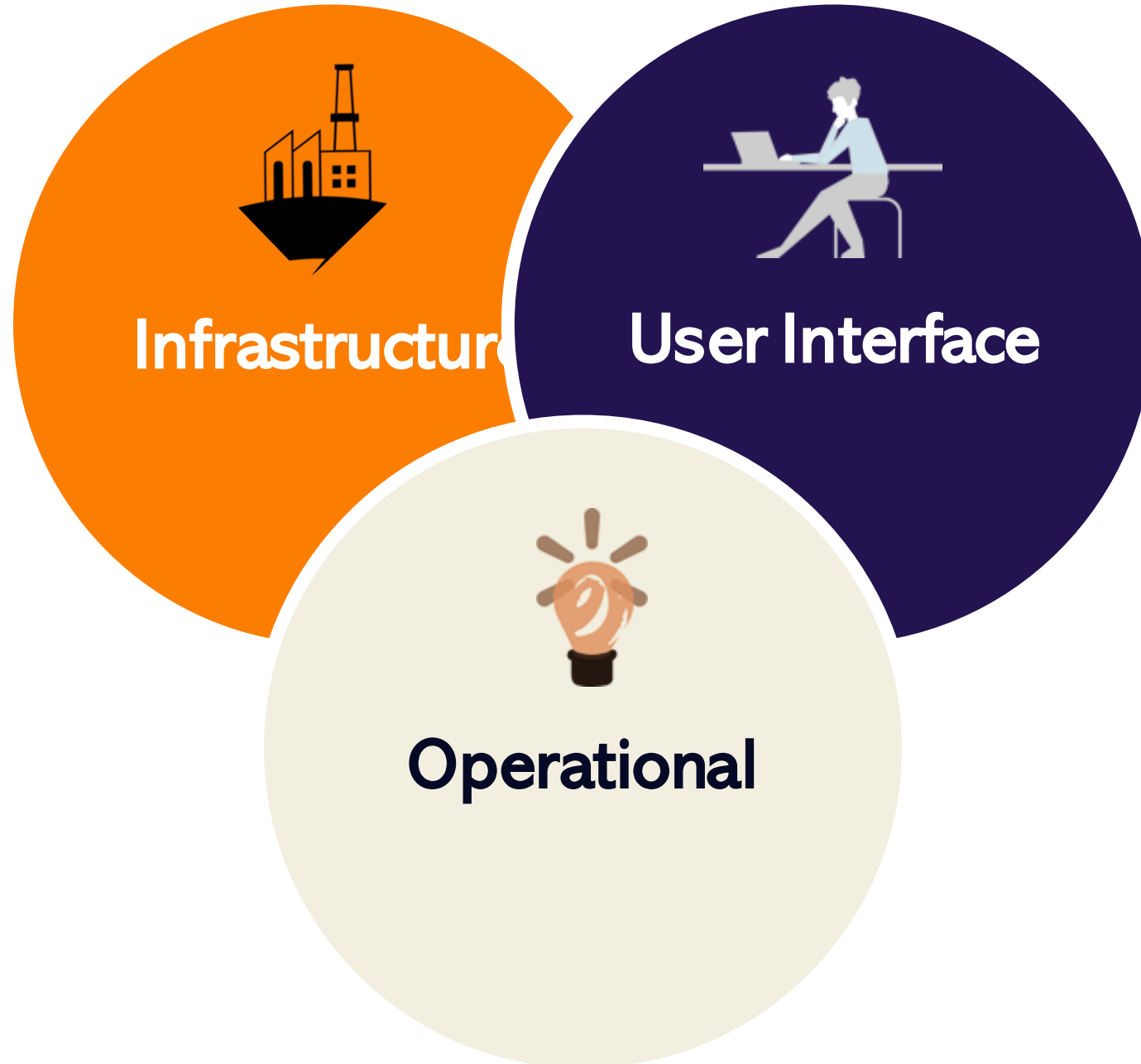
Evidence based research, providing a leading insight into circular communications

Establishing the foundations for a national platform for the circular economy



The Problem

The Problem



The Problem

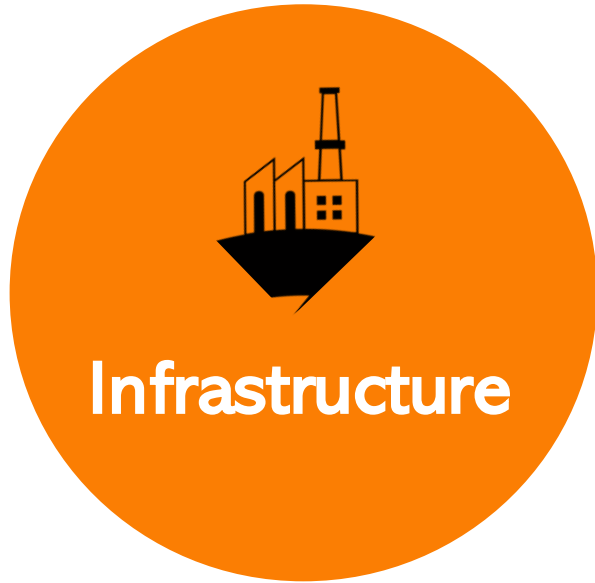
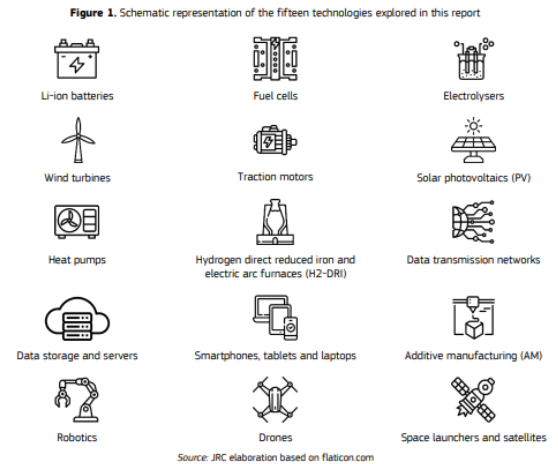


Table 1. Strategic and critical raw materials used in the technologies in scope.

Supply Risk	Raw material															
4.8	Gallium					*										
4.1	Magnesium			*												
4.0	REE (magnets)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
3.8	Boron	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
2.7	PGM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
1.9	Lithium	*												*	*	*
1.9	Bismuth									*	*	*	*	*	*	*
1.8	Germanium					*				*	*	*	*	*	*	*
1.8	Natural graphite	*	*	*				*		*	*	*	*	*	*	*
1.7	Cobalt	*	*	*				*		*	*	*	*	*	*	*
1.6	Titanium metal									*	*	*	*	*	*	*
1.4	Silicon metal	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
1.2	Tungsten			*						*	*	*	*	*	*	*
1.2	Manganese	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
0.5	Nickel	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
0.1	Copper	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
5.3	HREE (rest)		*	*						*	*	*	*	*	*	*
4.4	Niobium		*	*	*	*	*	*	*	*	*	*	*	*	*	*
3.5	LREE (rest)		*	*						*	*	*	*	*	*	*
3.3	Phosphorus	*				*	*	*	*	*	*	*	*	*	*	*
2.6	Strontium	*	*	*						*	*	*	*	*	*	*
2.4	Scandium			*						*	*	*	*	*	*	*
2.3	Vanadium	*	*	*				*		*	*	*	*	*	*	*
1.8	Antimony					*				*	*	*	*	*	*	*
1.8	Beryllium									*	*	*	*	*	*	*
1.6	Arsenic					*				*	*	*	*	*	*	*
1.5	Feldspar	*								*	*	*	*	*	*	*
1.5	Hafnium									*	*	*	*	*	*	*
1.3	Baryte	*	*	*						*	*	*	*	*	*	*
1.3	Tantalum			*						*	*	*	*	*	*	*
1.2	Aluminium	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
1.2	Helium									*	*	*	*	*	*	*
1.1	Fluorspar	*				*	*	*	*	*	*	*	*	*	*	*
1.0	Phosphate rock	*								*	*	*	*	*	*	*

Source: JRC analysis. Although it is a critical material, coking coal does not appear in the table as it is not used in any technology.



The Problem



E-waste Rising 5 x Faster than Documented E-waste Recycling

A record 62 million tonnes produced in 2022, Up 82% from 2010;



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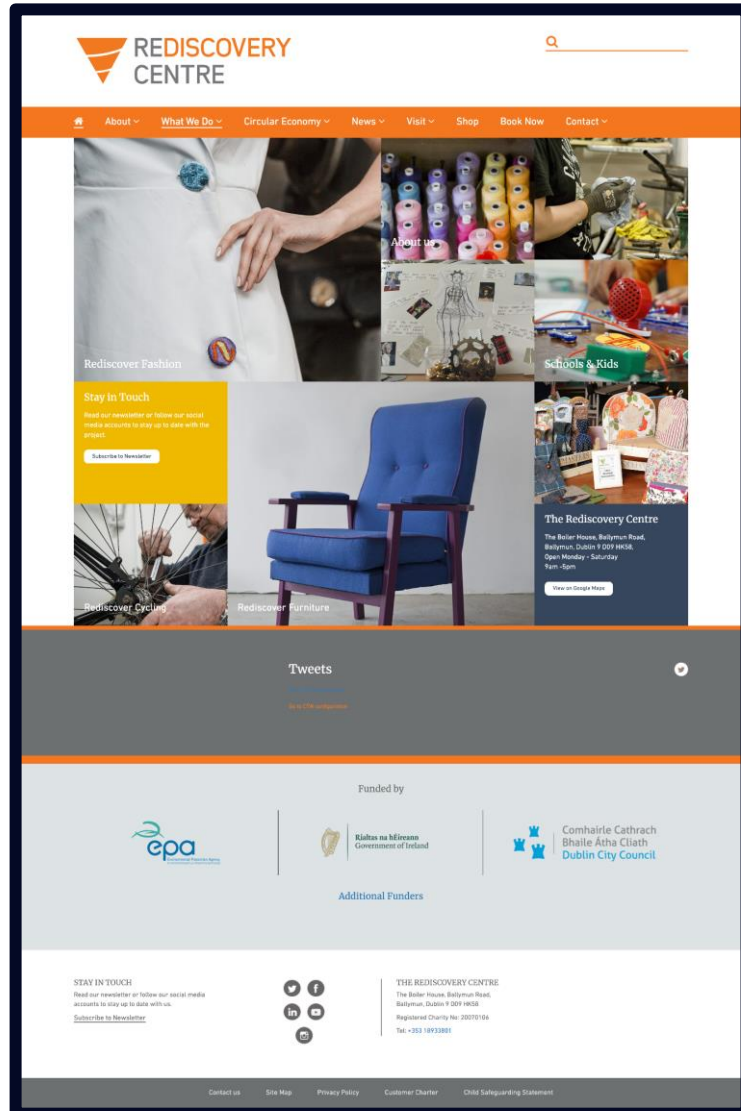
Operational

Email	European Inboxes: 51,870 Tonnes CO ₂ e per year
Web pages	1 x web page, 10,000 monthly views = 102 kg CO ₂ e / y
Streaming	Streaming Services: 4 hrs / day for 1 month: <ul style="list-style-type: none">• HD: 53 kg CO₂e vs SD: 2.5 kg CO₂e
AI	On average, a ChatGPT query needs nearly 10 x electricity to process as Google search

Data centres consumed **18%** of Ireland's total electricity in 2022

- Forecast to reach 25 - 32% by 2026

Sustainable Web Design



Initial Research

- What is the load time of the website?
- Does our website use unnecessary energy for end user?
- How can we keep the website engaging for users?
- How can we prevent users using webpages unnecessarily?

Request for Quotation

- Form, Function and UX
- Audiences and demographics research
- Conditions (training, SEO, google ads...)
- Sustainability (high to low priority)
- Weighting
 - Cost 60%, Environment 30%, Other 10%
- 6 x responses

Considerations

Hosting

- Local, renewable
- Fast loading

Video & Imagery

- Limit images & video
- No auto playing
- Reduce size

Graphic Design

- SVG = Scalable Vector Graphics
- Plotted points & drawn lines (vs thousands of pixels)

Functionality

- Remove unnecessary functionality
- Avoid plugins with code

Fonts

- Use system fonts where possible

User Experience

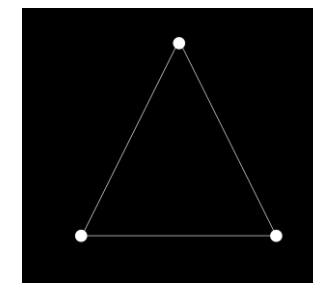
- Reduce the number of steps
 - Concise customer journeys.
- Low bounce rates
- Easy to find search
- Optimized menu
- No broken links

Coding

- Streamline Coding
- Delete unused old code

Colours

- Dark backgrounds



The National Centre for the Circular Economy

Leading Ireland's transition to a circular economy and sustainable future

[What do we mean by Circular Economy →](#)



OUR TEAM

Jacqui Kinsella

Tour Guide & Engagement Officer



OUR TEAM

Ciaran Kinsella

Facilities Officer



OUR TEAM

Mark Dunn

Programme Manager of Rediscovery
Cycling



OUR TEAM

Averil Raffery

Training Coordinator



OUR TEAM

Nessa Doran O'Reilly

Rediscover Furniture Programme Manager



About this website

Data transfer on the internet requires electricity, which creates carbon emissions - and this leads to climate change.

We try to limit this through running a low data website.

Find out how below.

[Visit Website Carbon Calculator ↗](#)

This web page is cleaner than



86%

of web pages tested





Thanks!