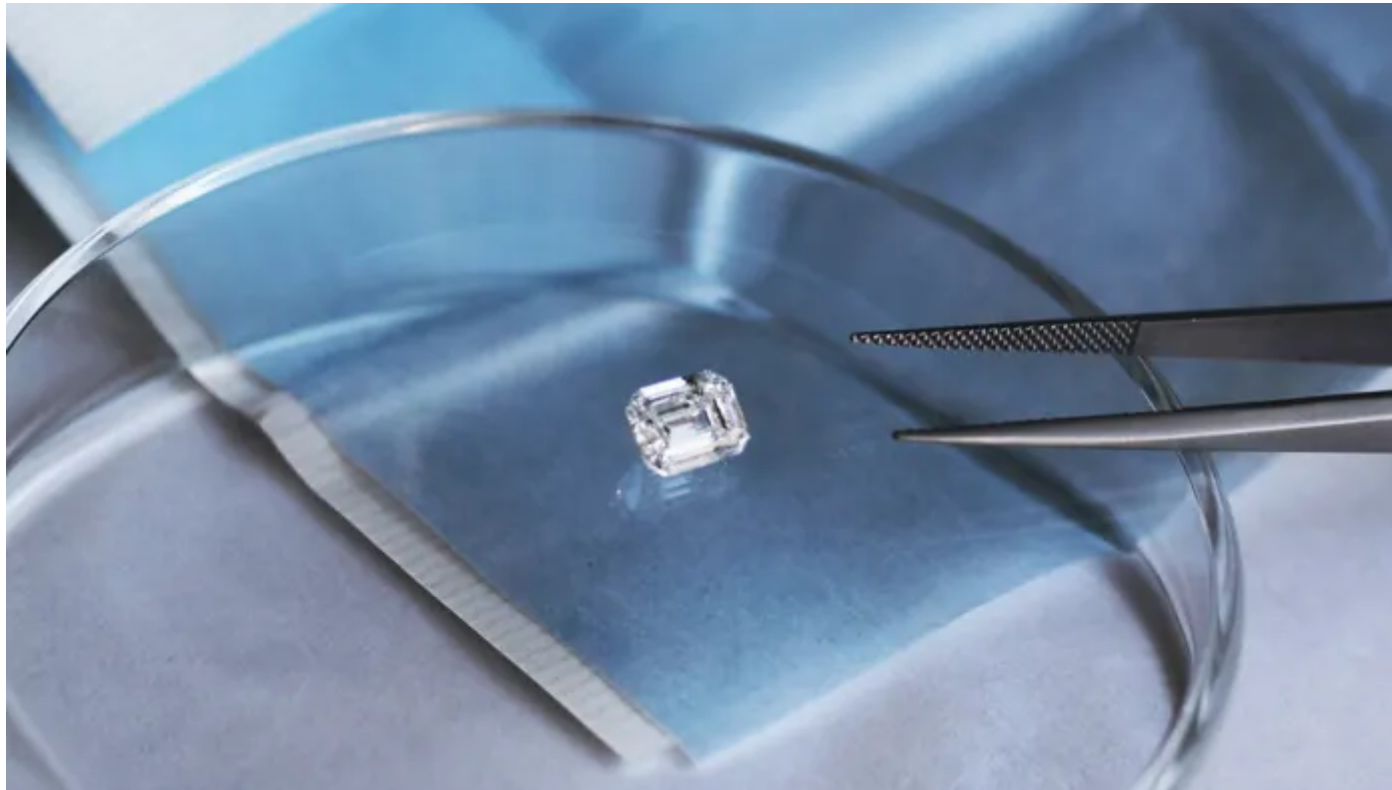


Moral Money Sustainability

Gold rush 2.0: Jewellers mine mobiles for precious metals

Big jewellery brands and boutiques are turning to e-waste to source their materials



Sustainability: Courbet uses lab-grown diamonds and recycled gold

Caroline Palmer JULY 1 2019

The world faces a health and environmental crisis if no action is taken to tackle an explosion in electrical and electronic waste as ever more appliances and gadgets are

consumed and discarded.

Humanity is expected to produce 120m tonnes of “e-waste” a year by 2050, up from about 50m tonnes today, according to a UN report launched at the World Economic Forum in Davos this year. Only a fifth of appliances and devices are currently recycled, with the bulk of the often-toxic items ending up in landfill or incinerated.

Yet electronic waste often contains valuable metals such as gold, silver and copper — there is 100 times more gold in a tonne of discarded mobile phones than in a tonne of gold ore, according to the report.

The jewellery industry, which accounts for about half of gold demand and a fifth of silver, can play its part in the global drive for a more sustainable economy, by sourcing more materials that are recycled in a way that harms neither the environment nor people.

The e-waste generated worldwide each year has a material value of \$62.5bn — three times the annual production of the world’s silver mines and more than the gross domestic product of most countries, according to the report published by the Platform for Accelerating the Circular Economy and the UN’s E-Waste Coalition, a group of seven UN agencies.

The next gold rush will not be in the hills of California

The UN is working to promote the economic opportunities of a circular economy, where waste is reused. Most recently it partnered with the Nigerian government on a \$15m initiative

but the landfill sites of urban cities

Sandra Wilson, a jeweller and academic

to support the country in setting up the infrastructure for industrial-scale e-waste recycling.

There are health and environmental factors to consider, too. In Asia and Africa in particular, people are risking their health and lives to obtain precious metals from waste — for example through the use of dangerous extraction chemicals, unprotected, at refuse sites — and earning only a subsistence living.

Countries across south-east Asia, including [Thailand](#), Vietnam and most recently the [Philippines](#), are pushing back against a deluge of unwanted e-waste and plastic from Europe, the US and Australia.

Meanwhile, the jewellery industry is showing signs of greater commitment to change — even if that means paying more for raw materials.

From its store in the Place Vendôme in Paris, the heart of the luxury jewellery sector, new fine jewellery house Courbet has put ethical sustainability at the centre of its business and only uses lab-grown diamonds and gold recycled from e-waste.

It was initially difficult for the jeweller to find a suitable company recycling e-waste, according to Charlotte Daehn, a spokesperson for Courbet. “But we now have a wonderful partner we can trust,” she says. “At first we were using recycled gold whose origin was not as clear as we wanted. The gold we now use costs us about 10 per cent more but, as we work with lab-grown diamonds that are less expensive, in the end we

manage to have a price that is in the average for the jewellery of the Place Vendôme, even a little bit less.”

Danish high-street jewellery brand Pandora has also been on a sustainability drive. For the 112m pieces of jewellery it made last year, 88 per cent of the 250 tonnes of silver it bought was recycled and all of the 65kg of gold, with about 50 per cent coming from electronic waste.

“Fair trade-certified gold supply is too limited to cover global demand, whereas the recycled supply of especially silver is much more reliable,” says Jon-Paul Daniel, Pandora’s vice-president of procurement.

Smaller-scale artisan jewellers are also using e-waste. Ashley Heather initially sourced her silver from waste photographic chemicals, but as darkroom photography became less popular and demand for her minimalist pieces grew, “e-waste presented itself as the obvious solution”, the South Africa-based designer says.

In the Netherlands, Nowa (which stands for ‘no waste’) creates necklaces and bracelets in gold and silver extracted from old mobile phones. Nowa started shipping its jewellery in May, having raised €14,000 through crowdfunding platform Kickstarter.

The mobile phones are sourced by fellow Dutch company Closing the Loop, which has partnered with entrepreneurs in Africa and Asia to create recovery networks to collect scrap handsets for recycling. The company says it has collected more than 2m mobiles.

According to the World Gold Council, 190,000 tonnes of the planet's 244,000 tonnes in gold reserves have already been mined. The UN estimates that e-waste accounts for 7 per cent of all gold extracted.

“The next gold rush will not be in the hills of California but the landfill sites of urban cities,” says Sandra Wilson, a jeweller and academic based at Duncan of Jordanstone College of Art and Design in Dundee. She has been working alongside scientists at Edinburgh university who are developing a non-toxic method of extracting gold from e-waste.

About 90 per cent of the world's e-waste is illegally traded or dumped each year, Ms Wilson adds, with a high proportion handled by the informal market in India.

She believes part of the answer lies in formalised recycling. She is developing a project called Urban Gold Rush, connecting metallurgy partners in Varanasi and Mumbai with local jewellery artisans to encourage the use of gold and copper recovered in formalised recycling to create new jewellery.

The recycling push could get a further boost next year. At the Tokyo Olympics, all 5,000 or so medals handed to athletes will be made using metals extracted from e-waste donated by Japanese consumers, placing the issue firmly on the global stage.

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