4 LESSONS

FROM CREATING A DUTCH CIRCULAR FACE SCRUB

On the surface, beauty products and water treatment are worlds apart. After all, the glitz and glamour of cosmetics and utility-scale operations don't often mix.

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A collaboration in the Netherlands, however, is proving these two businesses are more closely aligned than you may think.

A circular skincare product was borne out of a partnership between AquaMinerals, who has teamed up together with utilities Waternet & WML, and skincare company, Naïf.

While the face scrub is one product embodying a circular economy in action, the history of the country's circular efforts goes back much further. And looking back over this development can reveal four lessons to help achieve a circular economy.

1) Start with the economics

It was over 25 years ago that a group of Dutch water utilities came together to address how to best treat their solid wastes. Produced sludges and other solid wastewater from multiple utilities were collected to be transformed into, both fi-

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nancially and environmentally, valuable materials for industries and the agricultural sector.

What originally started as a collective way to save costs, eventually evolved into helping to reimagine waste as a resource.

AquaMinerals looked for market needs as a starting point for the specifications of the residuals which are in the water.

Today, the company reclaims and resells circular products for over 10 different sectors, including lime, removed during the drinking water softening process. Next to the circular face scrub, the resource is also sold as pellets for gardening and glass bottles.

2) Focus on the business models and value chain

While we have the technology today to extract resources from a single water treatment plant at a local level, this does not constitute a circular economy. There needs to be a link between the resources and the market. For this to happen, you need to have markets and innovative business models.

As part of its role as a nationwide brokerage company, AquaMinerals collects the valuable resources from utilities in the Netherlands and one in Flanders and then delivers the materials to the market. This includes taking care of the

quantities and moving materials around to where they are needed to guarantee contract values.

However, business profitability depends on market needs and the availability of competitive resources. After all, a positive sales value doesn't always mean that all the costs (transport, processing, storage, certification) are covered. For some residuals, the business is profitable, and for others, not (yet).

Luckily, a lot of the costs the organisation incurs are covered by the founding drinking water companies, which in turn, benefit from the revenue streams of the organisation's overall portfolio.

3) Lead with a market-first approach

Another lesson to share from the experience is to lead with a market-first approach. Previously, organisations would extract resources from water and then look for opportunities to sell the product.

Instead, AquaMinerals found out which resources were needed first, in effect defining the demand before providing the supply. As a result, re-





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sources are recovered from water utilities' treatment plants to the specifications required.

A market-first approach is a different way of thinking, but upon reflection, a necessity to ensure there are end markets for the supply.

4) Create economies of scale

However, a market alone is not enough for a circular approach to work; there needs to be scale.

For example, if individual utilities collected and recovered their resources to sell on the market, in the case of the Netherlands, they would only have a 10 per cent share. Even with materials such as iron, calcium and salts, which are very cheap, you cannot compete with the big market of cheap chemicals.

For a circular economy to be successful across Europe and elsewhere, it's not just about the technology – you need to able to organise at scale to make it profitable.

There is also a need for clearer, more straightforward and aligned legislation on the European level. I'm not suggesting this to be less strict, but it would certainly enable more businesses to reclaim and reuse waste streams.

While politicians can be ambitious, lawmakers and enforcement agencies can provide further challenges still.

Reusing waste requires knowledge about legislation and compliance, which can be expensive and too complicated for a commercial company to pursue.

To conclude: while on the surface, the face scrub seems a relatively simple cosmetics product, it reveals a deeper Dutch circular journey. Achieving a circular economy will not be easy, but knowledge sharing and learning from such experiences will be essential.

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