

<http://www.wired.co.uk/article/amsterdam-water-supply-blood-banks>

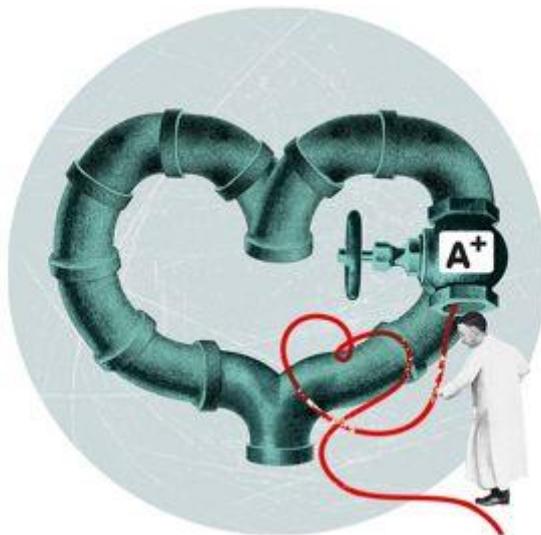
[Blood](#)

How chilling! Amsterdam is using its underground water supply to cool its blood bank

The process could save about 1,900 tonnes of carbon dioxide a year

By [TINA AMIRTHA](#)

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Using Amsterdam's water supply allows Sanquin to efficiently meet its cooling needs
sr. García

A blood bank in [Amsterdam](#) is using public drinking water to flash-cool its drug production line - reducing the city's water-heating needs in the process.

Working with Dutch water company Waternet, [Sanquin Blood Supply Foundation](#) has found a way to draw [water](#) from Amsterdam's two main public drinking-water lines, both of which pass near its campus on the west side of the city.

Then, using a heat exchanger, Sanquin extracts the cold from the water, leaving the rest of Amsterdam's drinking water 0.5°C warmer in the winter months. A portion of this harvest

cools the air in Sanquin's facilities, and the rest is stored underground.

"Sustainability is important, but we also need to efficiently meet our cooling needs," says Jordy Pedd, facilities project manager at Sanquin. "This turned out to be our best option."

Sanquin says it could save about 1,900 tonnes of carbon dioxide a year, which, according to the city of Amsterdam, is the annual energy usage for up to 1,800 households.

Like many other [blood](#) banks, Sanquin recruits volunteer blood donors, collects blood and isolates the samples' red blood cells and platelets to send back to hospitals for clinical treatments. But Sanquin goes one step further: it keeps the blood's leftover plasma in order to manufacture plasma-based therapies on-site. This production process requires a year-round stream of sterile water to sanitise its lab tools.

"If we clean our parts with water that's not within the right parameters, then the end product is not good to go. We cannot use it," says Roy van der Mark, Sanquin's installation manager.

Sanquin heats the process water up to 80°C before using a quick burst of energy to cool it down rapidly to 20°C before use. "Basically, we need a lot of cooling down there," says Pedd.