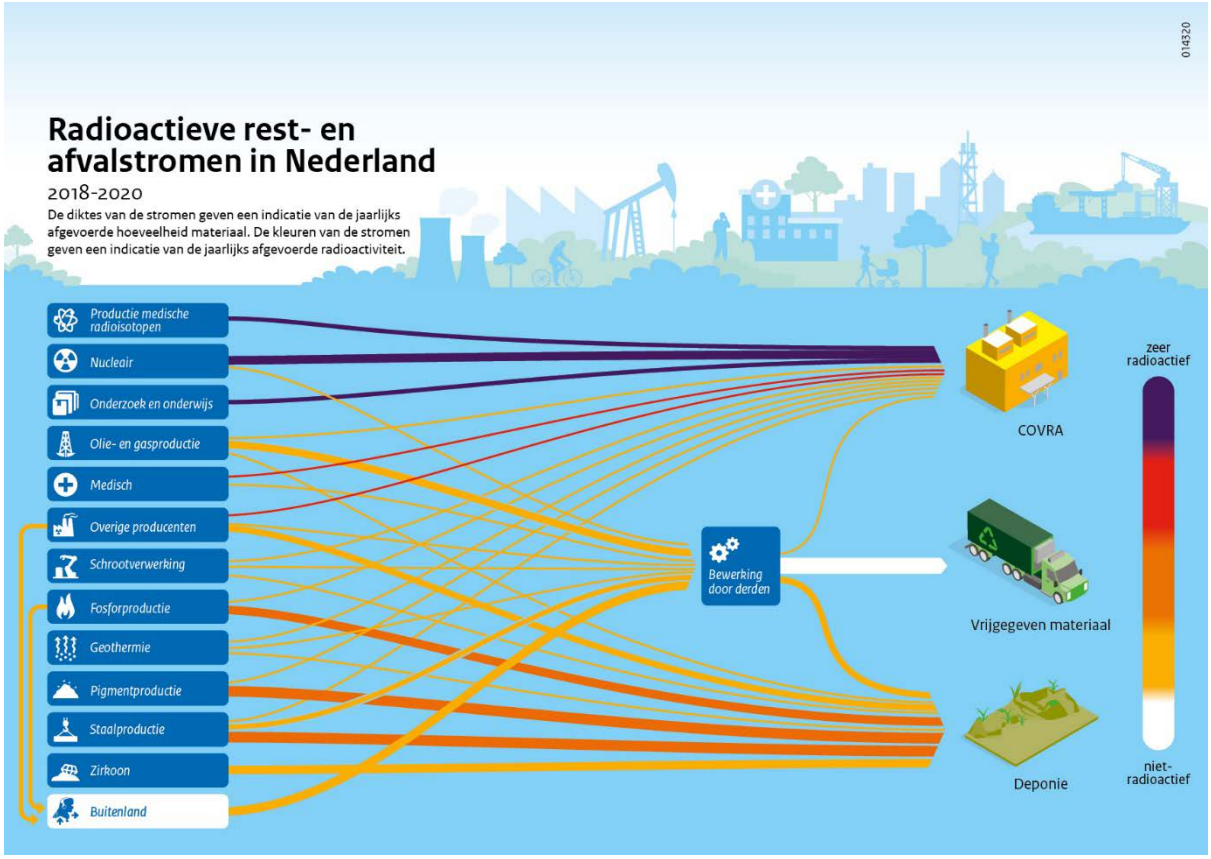
An inventory of radioactive residue and waste streams in the Netherlands

PDBM Bekhuis (LHA Boudewijns, M van der Schaaf)

An inventory was made of radioactive residues and waste materials that were disposed of between 2018 and 2020 in the Netherlands. This research contributed to the updating of the Dutch National Programme of Radioactive Waste and Spent Fuel. Waste streams came from different sectors in nuclear industries, non-nuclear industries and medical institutions. Information on relevant radionuclides, total activity and mass was gathered through literature and interviews. Additionally, possibilities for waste minimization were examined.

The waste streams that generate the highest total activity are those in the production of medical isotopes and in the nuclear energy sector. Both streams contain man-made radionuclides and account for approximately 98% of the radioactivity annually transported to the Dutch Central Organisation for Radioactive Waste (COVRA) for disposal. When expressed in mass, most waste (both radioactive waste as well as conditionally cleared material) originates from the production of titanium dioxide and steel. Annually these streams account for approximately 90% of the total quantity of disposed radioactive material. These materials contain natural radioactivity and can therefore be disposed of at landfill sites. For some (very) low radioactive waste streams opportunities for reduction of the quantity through recycling appeared technically feasible.

Report available in Dutch through https://doi.org/10.21945/RIVM-2022-0073

This visual will be translated into English when this abstract will be selected for presentation at the conference.