

CIRCKLO

SUSTAINABILITY

STATISTICS

COMPENDIUM



Pharma



Leasing rather than purchasing equipment could save hospitals in Denmark €70-90million by 2035.



By using single use plastic components in their manufacturing processes, and then burning these in place of fossil fuels, biotech companies can eliminate up to 80% of their water usage and reduce their carbon footprint by up to 55%

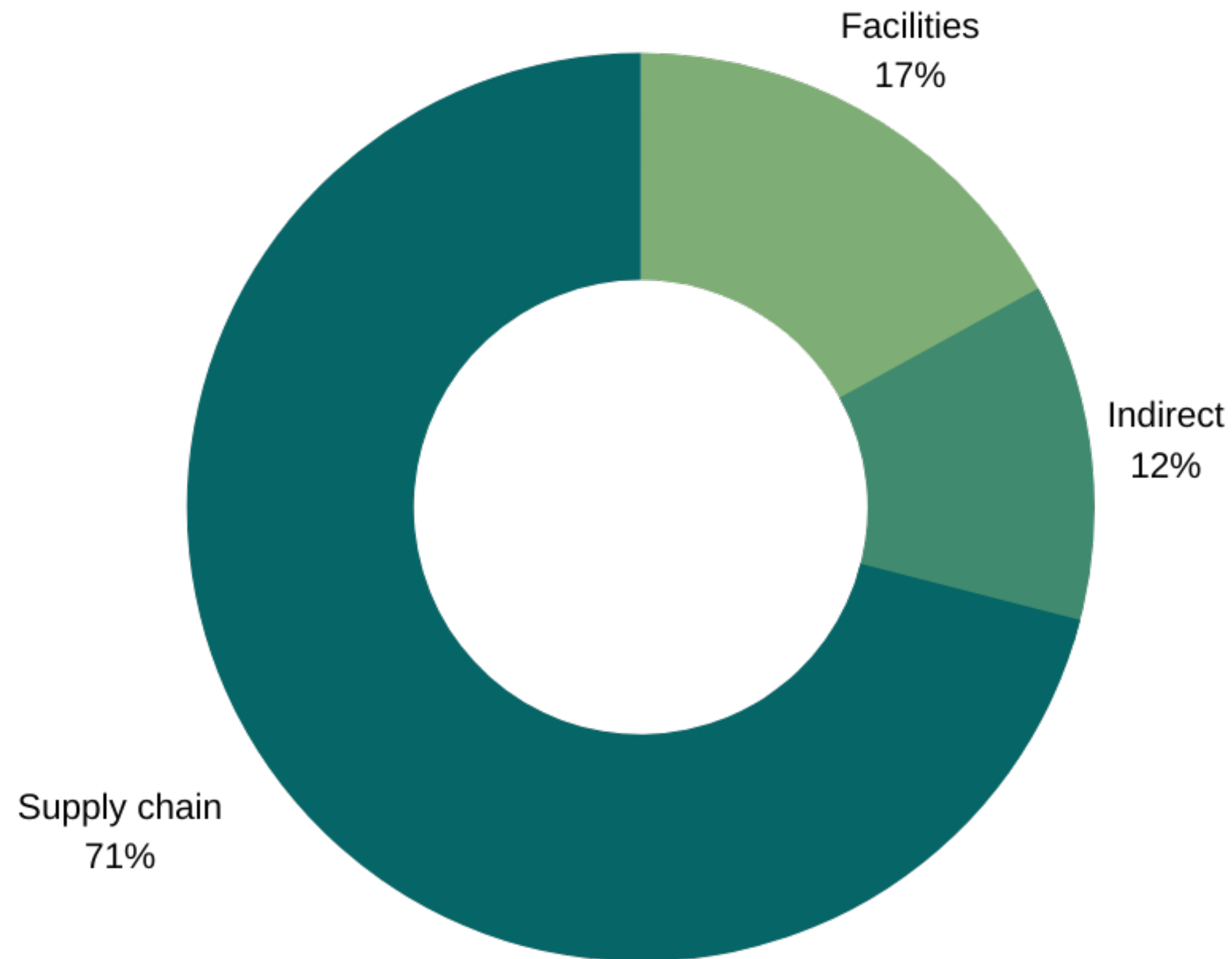


In 2015 it was estimated that the global market for refurbished medical devices was worth \$9.37 billion (compared to an overall global medical device market of \$381 billion the same year, approximately 2.5%).



Data from 2015 shows that, on average, pharma emits 48.55 tonnes of carbon dioxide per million dollars, which is about 55% higher than the automotive sector's 31.5 tonnes.





Emissions emanating directly from health care facilities make up 17% of the sector's worldwide footprint.

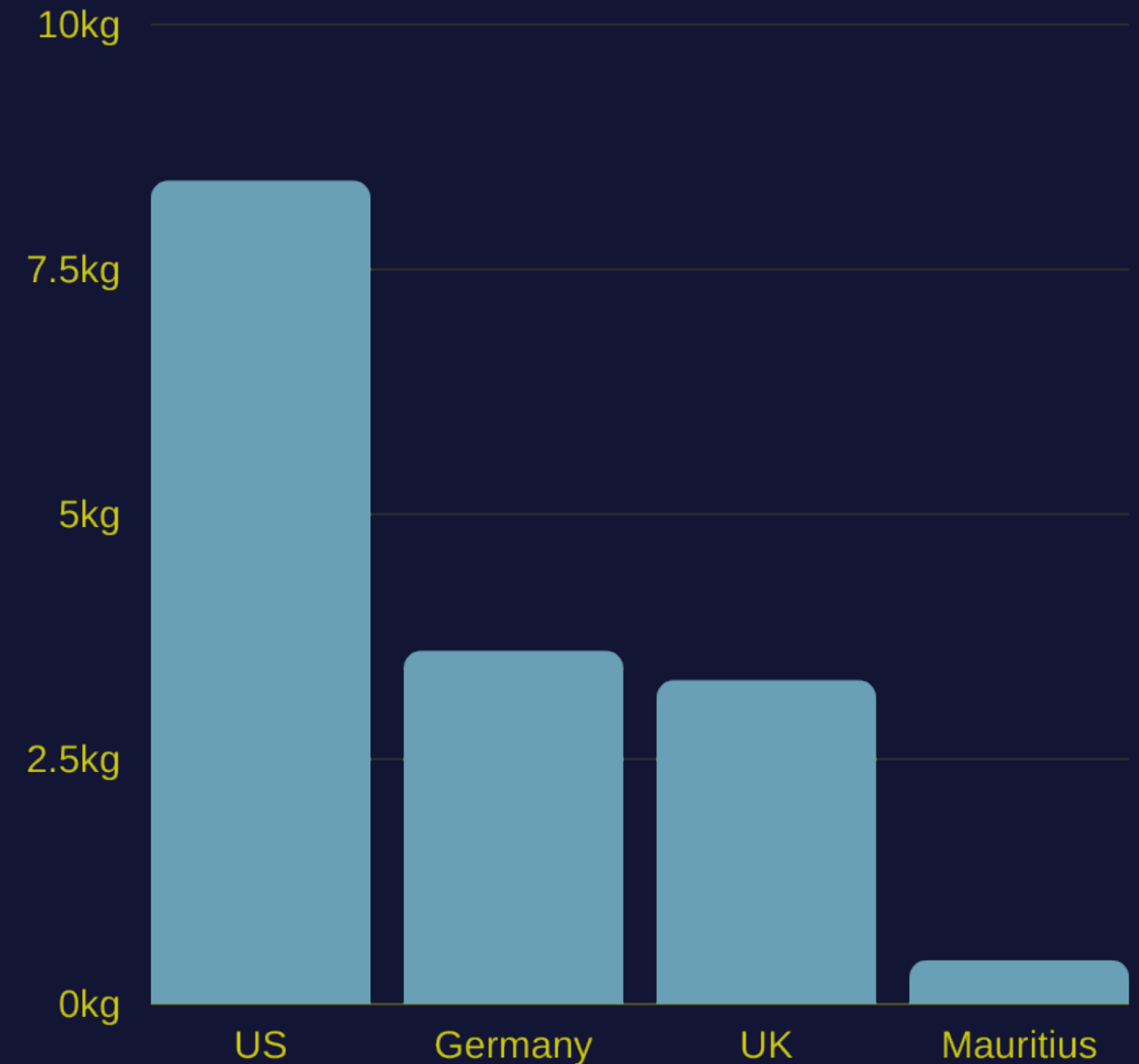
Indirect emissions from purchased electricity, steam, cooling and heating comprise another 12%.

And 71% are primarily derived from the health care supply chain – the production, transport, use, and disposal of goods and services that the sector consumes.

Healthcare is estimated to contribute **3-5%** of greenhouse gas emissions globally, whilst the WHO identifies climate change as the most important threat to health.



The amount of waste generated per hospital patient per day, with the US generating the most globally and Mauritius the least.



88% of pharmaceuticals in the environment can be attributed to patient use and excretion of drugs; 10% from unused medicines that people don't dispose of properly, and 2% attributed to waste from production.

50% is the average rate for patient adherence to prescribed medication in the world.





The global pharmaceutical packaging market size was valued at **USD 98.58 billion** in 2019.

The pharmaceutical glass ampoules market is expected to reach a value of \$4 billion by the end of 2027.



Health and wellbeing
accounts for **\$1.8 trillion**
of the \$12 trillion market
opportunity in tackling
the Sustainable
Development Goals

**Tata Chemicals
Europe plans to build
Britain's most powerful
carbon capture plant by
2021, which will stop the
equivalent of 22,000 cars
worth of emissions a year
rising into the atmosphere.**

More than 200 companies represent the global pharmaceutical market, yet only 25 consistently reported their direct and indirect greenhouse gas emissions in the past five years.

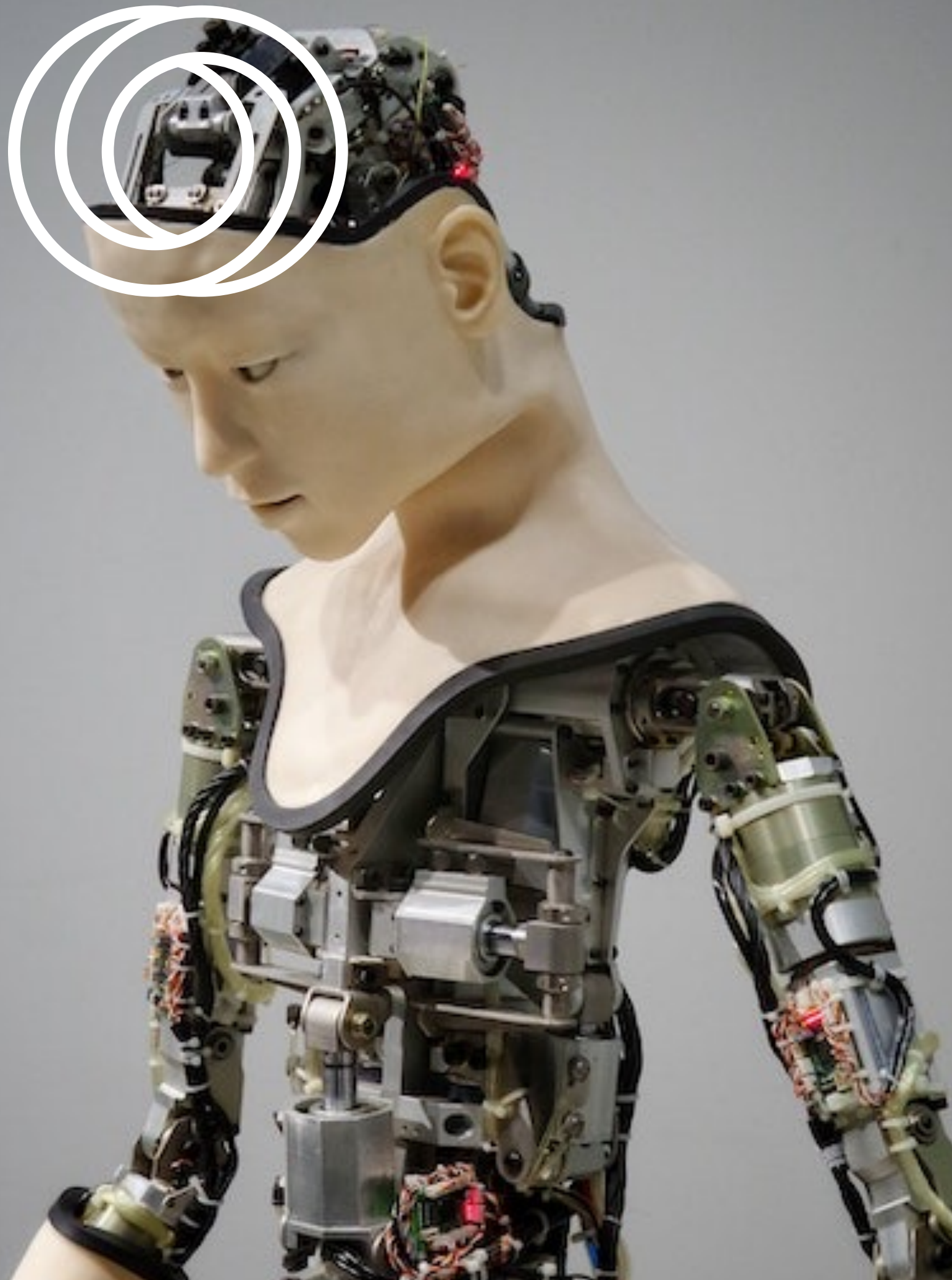
The pharmaceutical industry was worth **\$934.8 billion in 2017**. This figure is expected to rise to **\$1170 billion in 2021**, growing at 5.8% per annum

AstraZeneca recently committed to **investing \$1bn to achieve zero carbon emissions from its global operations by 2025** and ensure its value chain is entirely carbon negative by 2030.

In 2018, 94% of the total waste from Novo Nordisk's manufacturing was recycled, used for biogas production or incinerated at plants where the energy is used for heat and power production.

Just 1% ended up in landfill.

In five years no less than **\$45bn** of **venture capital has gone into digital health start-ups** on average, a figure to rival the level of investment in the pharmaceuticals industry; and the total value of this market could reach some **\$400bn** in 2024.



The use of AI is growing steadily within the biopharma industry, with a projected market volume reaching \$10B by 2024.



**The internet of things can
lower the costs of
operational and clinical
inefficiencies by \$100
billion per year.**

Within the global healthcare industry:

- AI will grow by \$1.7b in the next few years, increasing productivity by 10-15%.
- Blockchain systems application grew by 5-10% during 2019.
- Global healthcare 3d printing market is expected to grow to \$4130.9m by 2026.

