

## Semiconductor manufacturing has a poor environmental record



World's largest silicon chip manufacturer is now producing more CO<sub>2</sub> than General Motors

Manufacturing contributes to **74%** of a smartphone's carbon footprint



Integrated circuits make up **more than half** of that footprint



Silicon wafer fabrication uses highly potent gases that have a global warming potential **17,000 times more than CO<sub>2</sub>**

At Pragmatic, we put sustainability at the centre of our manufacturing processes, to ensure our Flexible Integrated Circuits (FlexICs) have minimal impact.

1 x FlexIC = less than 0.5gCO<sub>2</sub> equivalent



A typical 500ml bottle of carbonated beverage contributes 250 times that amount.

FlexIC chip carbon footprint contribution

## How are we making semiconductor manufacturing greener?

We're innovating at every stage of the process



### Safer Chemicals & Gases

We use fewer potent gases which are easier to dispose of through standard recycling or treatment processes



### Reduced Wastewater Emissions

We use significantly less water and fewer chemicals and are implementing processes to **reclaim >80% of spent ultra-pure water**



### Optimised Processes

We're lowering our footprint by adopting the latest advanced energy-efficient equipment and transitioning to a 300mm fab



### Supplier Buy-in

We promote best practice and sustainable production methods across our supply chain



### Decentralised Production

Our decentralised production capabilities offset the supply chain transportation footprint