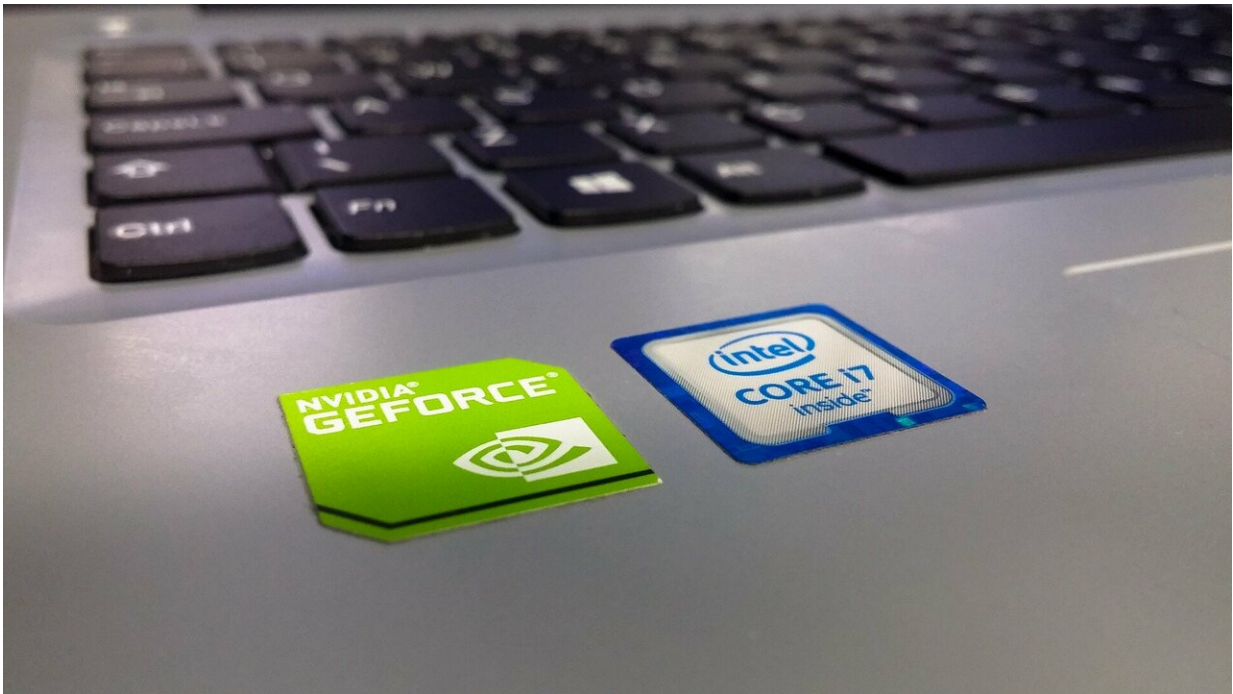# Arm: semiconductor giant powering world's smartphones

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Credit: CC0 Public Domain

Arm, the British semiconductor designer being sold by Japanese group Softbank to US chip company NVIDIA [for up to $40 billion](#), is a technological power in smart phones worldwide.

The British company traces its origins to Acorn Computers, whose BBC Micro machine was the introduction to computing for millions of British

schoolchildren in the 1980s.

Arm's technology has been used in more than 180 billion chips shipped worldwide and is present also in [cloud computing](#), for which demand has soared during the coronavirus pandemic as office staff worked remotely from home.

Apple core

The company's current name was originally an acronym for "Acorn RISC Machine", a processor that was chosen by Apple to power the US firm's first handheld [device](#), the Newton, released in 1993.

Arm [chip](#) technology was present in the first iPhone released in 2007, and remains the bedrock of differing types of current mobile devices, including those made by Chinese giant Huawei.

Well ahead of Intel

While it does not make chips, the designer licenses the architecture that enables devices to function. In terms of market penetration, Intel is a distant second.

Arm, based in the English university city of Cambridge and with a global staff of more than 6,500 people, says its technology reaches 70 percent of the world's population.

Chips using its technology are also installed in medical instruments, base stations and servers.

Internet of Things

Arm's move into interconnected home devices, the "internet of things", was a key factor behind Softbank's 2016 decision to spend £24 billion to acquire the group.

It remains a key driver of the NVIDIA takeover, according to equity analyst Nicholas Hyett at stockbroker Hargreaves Lansdown.

"By drawing on Arm's huge pool of active devices, as well as its technical knowhow, NVIDIA's hoping it can crack a technology with potential applications in cloud, smartphones, PCs, self-driving cars, robotics and the Internet of Things," Hyett said.

"It's a big and uncertain bet, and comes at a high price. Fortunately the two groups have core businesses which are very cash generative, and together they should be able to quickly pay down any financial hangover from the deal."

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