



Anticipated acquisition by NVIDIA of Arm's Intellectual Property Group business

Invitation to Comment - 6 January 2021 to 27 January 2021

Joint response by:

BCS, The Chartered Institute for IT

Hermann Hauser, Co-founder, Venture Partner, Amadeus Capital Partners; Co-founder, Arm

### **Summary findings**

A country and region can be defined as having Technological Sovereignty when it controls the IT infrastructure needed for its economy and government to act with independence.

We argue that Technological Sovereignty in the UK (and Europe) is in the best interests of economic competition and political stability across both regions.

Allowing a microprocessor monopoly to be held by a US company within the jurisdiction of the USA will distort future innovation, increase its powers of coercion and decrease the ability of UK companies to compete.

The merger is anti-competitive and would deprive Britain of arguably its sole remaining bargaining chip in the struggle for Technology Sovereignty. It would also reduce Britain's contribution to any European initiative in this field.

Arm's current business model, which allows hundreds of UK (and EU) companies to incorporate ARM technology and export it, is at risk. The destruction of this model is clearly anticompetitive. Our contention is that the Arm acquisition is as significant as if a single private company were allowed to buy the IP that underpins the Internet.

A survey by BCS, The Chartered Institute for IT of its professional members in September, found that 70% agreed that the government should intervene to stop the merger <sup>1</sup>.

The planned takeover of Arm should therefore be averted as anti-competitive, and European chip development and production should be supported, alongside reciprocal agreements with China and the USA for the UK.

## **Detailed response and supporting evidence:**

# Breaking up Arm's current business model is anti-competitive

Co-founder of Arm, Hermann Hauser has gone on record with most major news outlets, including the BBC, describing the deal as "an absolute disaster for Cambridge, the UK, and Europe" <sup>2</sup>.

Nvidia's ownership would break up Arm's business model, which involves licensing chip designs to hundreds of companies around the world - some of which compete with Nvidia.

Arm being acquired by one of its customers would remove that competitive advantage. If Arm becomes a US subsidiary of a US company, it falls under the US export regulations.

The numerous UK companies that incorporate Arm's technology in their products, want to sell it, and export it to anywhere in the world including China. This deal means the decision on whether they are allowed to export will be made in the White House, not Downing Street.

#### Losing Technological Sovereignty is anti-competitive

The planned acquisition of Arm poses a severe threat to the UK's technological sovereignty.

The UK's already diminished independence and efficiency in IT hardware and software development will be further damaged if the few important key industries that still exist do not remain independent.

As a previously independent platform, Arm is developing computer and smartphone chips that can be used by numerous competing manufacturers worldwide.

The takeover of Arm by Nvidia, based in Silicon Valley (US), will shortly gift it a global monopoly in the areas of smartphone processors, and dominance in other devices.

<sup>&</sup>lt;sup>1</sup> <u>https://www.bcs.org/more/about-us/press-office/press-releases/it-professionals-urge-the-government-to-intervene-in-Arm-sale/</u>

<sup>&</sup>lt;sup>2</sup> https://www.bbc.co.uk/news/technology-53637463

Arm has designed almost every chip in the fourth industrial revolution, from smartphones, to tablets, to the internet of things, to 5G chips, and in future most likely all Apple laptops and Microsoft laptops.

The digital infrastructure of the planet can reasonably be claimed to be running on Arm.

Allowing that to be controlled by a US company within the jurisdiction of the USA is alarming, and could massively distort future innovation and the chances of UK (and EU) companies to compete.

Its impact on reducing competition would be as constricting as if a single private company were allowed to buy the IP that underpins the Internet.

Any future politically motivated approach by the US government and the Senate, comparable to that against the Chinese companies Huawei or TikTok, could then also create considerable risks for the European economic area (including the UK) with these important chip families.

We believe the takeover of Arm would result in a highly dangerous market control and be open to possible political exploitation.

# The acquisition would be anti-competitive in the geo-political context

Sovereignty used to be perceived as a geographic and military concept where dependence and coercion was exercised through military might. However, COVID-19 revealed our dependence on China for masks and PPE. Technology Sovereignty has become a defining issue of the decade.

In the past Britain and the EU's dependencies on other nations were overlooked because it was believed that supply chains and former alliances were secure.

Can Britain now be assured of guaranteed, unfettered long-term access to these technologies like 5G, payment system, semiconductors?

In trade negotiations the outcome is determined by the relative 'clout' of the participants.

Britain has 1% of the world's population, 2% of the world's GDP (PPP); Arm strengthens our hand in negotiations across a range of industries, yet it is now under offer.

# Survey of IT specialists by the industry's professional body clearly backed intervention

In September 2020, shortly after the acquisition was announced BCS, The Chartered Institute for IT polled its members, who are IT professionals working across industry, the public sector and academia, on the deal.

Our survey received over 1771 individual responses and was covered exclusively by The Times <sup>3</sup>. The poll found that **70% of IT experts believe the government should intervene in the deal.** 

Only 11% agreed that the sale of Arm to Nvidia would strengthen the UK's position as a world leader in digital technologies.

Nearly all IT specialists questioned (95%) felt it was important for the UK to retain ownership and control of significant digital tech companies within its borders.

#### Conclusion

The poll can be read as a clear mandate for the UK to control the ownership and destiny of strategically significant tech companies such as Arm. Not for idealistic or nationalistic reasons, but because it would create a monopoly with irrevocable consequences.

We welcome the CMA consulting with all interested parties on the deal, to gather an evidence base to support decision making on whether the Nvidia takeover of Arm, whose microprocessors are ubiquitous, is anti-competitive.

Arm microprocessors are in most cars, IT infrastructure equipment, 95% of mobile phones. Nvidia's purchase of Arm would create another giant US monopoly, adding to the number of US dependencies and powers of coercion, and deprive the UK of arguably its greatest Big Tech success story and most competitive business models.

The CMA investigation should conclude that the proposed acquisition restricts competition.

#### **ENDS**

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<sup>&</sup>lt;sup>3</sup> https://www.thetimes.co.uk/article/ministers-under-pressure-to-intervene-in-nvidias-takeover-of-Arm-jdg5tnf38

# **About the Respondents**

# BCS, The Chartered Institute for IT

The purpose of BCS as defined by its Royal Charter is to promote and advance the education and practice of computing for the benefit of the public. We bring together industry, academics, practitioners, and government to share knowledge, promote new thinking, inform the design of new curricula, shape public policy and inform the public. As the professional membership and accreditation body for IT, we serve nearly 60,000 members including practitioners, businesses, academics, and students, in Scotland, the wider UK and internationally. We also accredit the computing degree courses in ninety-eight universities around the UK. As a leading IT qualification body, we offer a range of widely recognised professional and end-user qualifications.

# Hermann Hauser, co-founder ARM, co-founder Amadeus Capital Partners

Hermann Hauser co-founded Amadeus Capital Partners in 1997 with Anne Glover. In his long and successful history as an entrepreneur and venture capitalist, Hermann has founded or co-founded companies in a wide range of technology sectors. These include Acorn Computers (where he helped spin out ARM), Active Book Company, Virata, Net Products, NetChannel and Cambridge Network.

Hermann holds an MA in Physics from Vienna University and a PhD in Physics from the University of Cambridge. He is a Fellow of the Institute of Physics and of the Royal Academy of Engineering, and an Honorary Fellow of King's College, Cambridge. Hermann holds honorary doctorates from the Universities of Bath, Loughborough, Anglia Ruskin. Strathclyde, Glasgow and York and was awarded an Honorary CBE for 'innovative service to the UK enterprise sector' in 2001.

In 2004, he was made a member of the Government's Council for Science & Technology. In 2012 he became a Fellow of the Royal Society in recognition of his contribution to the translation of science into business and in 2013 a Distinguished Fellow of BCS, the Chartered Institute for IT. In 2015 he was made an Honorary Knight Commander of the Most Excellent Order of the British Empire (KBE) for services to engineering and industry and was made a Fellow of the Royal Society of Chemistry.