EUROPEAN TECHNOLOGICAL INDEPENDENCE

THE OPPORTUNITY FOR DIGITAL SOVEREIGNTY

DIGITAL RESILIENCE FORUM

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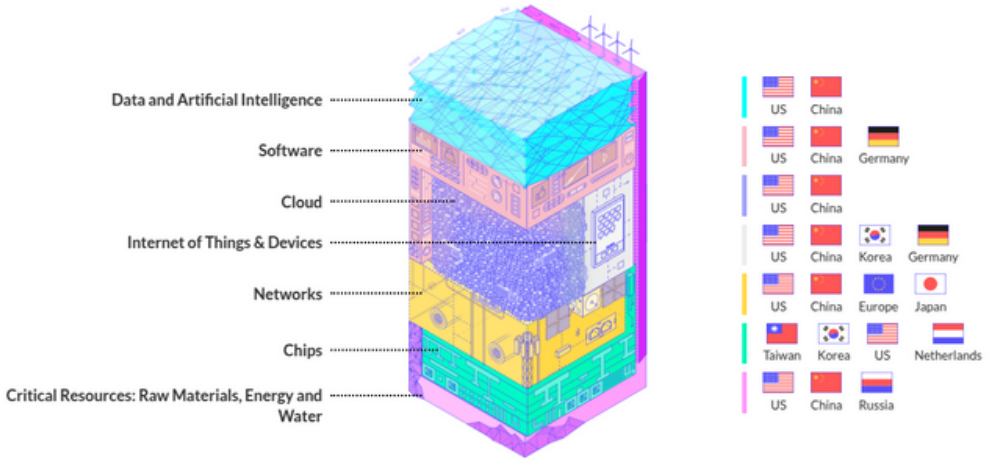
Europe's technological dependence

European technological dependence is a fact and affects the entire supply chain, from raw materials to digital products. If we focus on digital infrastructure, this dependence occurs both in large companies and in public administration and entails an absolute loss of control over data management, internal processes, and decision-making capacity.

The German federal government, for example, often depends on proprietary software. Around 96% of German agencies use Microsoft Office and Microsoft Windows. Around 80% of the virtualization solutions used by the German federal government are provided by VMware. Around 75% of German federal administrative data is managed using solutions provided by Oracle. These numbers demonstrate the public sector's dependence on proprietary and US technologies.



This figure demonstrates the public sector's dependence on proprietary and US technologies.

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This has several consequences. Cost is an important one. From 2023, the total cost to the German administrations reached 13.6 billion Euros, and a single company, Oracle, captured 4.6 billion Euros of that total spent. The rising cost is only one worrisome aspect. More important is the absolute loss of control. An example of this is the move to the cloud forced by providers who continue to increase costs.[1]

A European example of the opposite occurred during COVID. The Irish government, together with private companies, developed an app to trace infections and released it under a free license. This project was adopted by various countries, allowing costs and risks to be mutualized through its open adoption and development. In Spain and other European countries, however, the governments decided to commission the development of a similar application from companies, even though the Irish application already existed and the source code was already available under a free license. Joining forces could have saved time and money, while improving the quality of the application for everyone.

Europe in the software supply chain

There is a clear but resolvable weakness for Europe in the software supply chain. Currently, European governments do not require a risk analysis associated with software produced by third parties or demand to know the list of associated dependencies. The current tenders for building software-based services for citizens partially ignore these risks, even as similar requirements already exist for tangible products. No one would believe that materials to build bridges, airplanes, or military equipment do not follow a meticulous traceability process to adequately manage risks. Why is it not carried out in the digital sphere with our private data?

There are various initiatives to address these risks. An example, again from Germany, is the Sovereign Tech Agency, which invests in free projects that allow technological and supplier independence. This agency has been made a priority due to its importance in Germany's digital supply chain. Other initiatives at the international level are the OpenRail Association—where rail transport companies have joined together to reduce costs and risks—and the United Nations OSPOs for Good initiative—where technology, specifically free technology, has been defined as key to advancing the achievement of the 2030 agenda. These initiatives are a model for the work still to be done to ensure European technological independence.

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[1] Statement based on a presentation by Jutta Horstmann, CEO of ZenDis, Germany's digital sovereignty center whose mission is to strengthen the public sector against geopolitical threats by reducing technological dependencies - https://www.youtube.com/watch?v=StdX1DqlPO4.