



CRITICAL TECHNOLOGIES AND INDUSTRIAL CAPABILITIES: NATIONAL DEFINITION AND POLICY IMPLICATIONS

The Italian case

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The Armament Industry European Research Group (Ares Group) was created in 2016 by The French Institute for International and Strategic Affairs (IRIS), who coordinates the Group. The aim of the Ares Group, a high-level network of security and defence specialists across Europe, is to provide a forum to the European armament community, bringing together top defence industrial policy specialists, to encourage fresh strategic thinking in the field, develop innovative policy proposals and conduct studies for public and private actors.

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ABSTRACT

This paper analyses the way Italy addresses dependencies on critical technologies within the aerospace, defence and security industry. The Italian governments' documents do not explicitly list critical technologies and industrial capabilities. The only formalized measure to protect them concerns the control of the Foreign Direct Investments (FDI). De facto, those industrial capabilities able to produce cutting-edge products within bi/multinational/EU cooperative programmes are deemed critical, and the Ministry of Defence evaluates dependencies on an ad hoc basis. A certain degree of dependency from like-minded countries – particularly Europeans – is accepted and leveraged to move towards interdependency. Italy would rather support an EU-wide monitoring of extra-EU dependencies on critical technologies and industrial capabilities. The Russian war against Ukraine has further reinforced Italy's support for European defence cooperation and integration in synergy with NATO.

Keywords: Italy / defence industrial policy / EU / Foreign Direct Investments / cooperative programmes / procurement / NATO

AN UNCERTAIN DEFINITION OF CRITICAL TECHNOLOGIES AND INDUSTRIAL CAPABILITIES

Italian approach to dependencies regarding critical technologies and industrial capabilities is not fully formalized in government's documents, a situation which leaves both uncertainty and flexibility to stakeholders.

In Italy the whole aerospace, defence and security industry is somehow considered critical by the government, insofar it directly relates to the state's sovereignty and enables it to pursue an autonomous defence policy¹. Companies in this sector have to register with the Ministry of Defence to participate in national military procurements. Such a relatively broad approach does not help differentiation and prioritization within a variegated sector which includes from prime contractors to a number of small and Medium Enterprises (SMEs) and which had a turnover of EUR 16 billion in 2019².

The Ministerial Directive adopted in 2021 by Minister of Defence Lorenzo Guerini has set a number of objectives and guidelines for the defence industrial policy, including on strategic autonomy and technological sovereignty, and it has established a technical coordinating committee encompassing both institutional actors and the private sector³. The document has also envisaged a Plan for Technological Innovation (*'Piano di Innovazione Tecnologica della Difesa'*) as multiannual tool to plan, implement and review the Directive's guidelines⁴. However, the Directive itself does not explicitly list critical technologies nor dependencies, and the Plan has not yet been elaborated.

The Multiannual Programming Document (*'Documento Programmatico Pluriennale'*, DPP) presented annually by the Minister of Defence (MoD) to Parliament details the ongoing and planned procurement programmes with the related budgets⁵. As such, it gives a clear overview of what the MoD is going to procure, when and how, but does not directly indicate the critical technologies nor the related dependences. Finally, the National Plan for Military Research (*'Piano Nazionale Ricerca Militare'*) counts on very limited resources and is not a very useful compass in this regard.

¹Interview, 20 January 2022.

² Prometeia, « Il sistema industriale dell'Aerospazio, Difesa e Sicurezza : le sfide per il sistema Paese », December 2021, p. 7.

³ See in this regards <https://www.affarinternazionali.it/archivio-affarinternazionali/2021/07/politica-industriale-della-difesa-se-il-ministro-ci-mette-la-faccia/>

⁴https://www.difesa.it/Documents/Direttiva_Ministro_Guerini2907.pdf, p. 10

⁵ The DPP most recent example dates August 2021:

<https://www.difesa.it/Content/Documents/20210804%20DPP%202021-2023%20-ult.pdf>

In this context, the MoD evaluates the issue of technological and industrial dependencies on an *ad hoc* basis. Such an evaluation takes into account the aforementioned national documents, as well as the work-plan of the European Defence Fund (EDF) and the European Defence Agency's work on Key Strategic Activities (KSA)⁶. Interestingly, Italy actively participates in EU and NATO processes to define critical technologies/capabilities in order to develop with allies a collective compass for its national approach⁷. Yet there is no official Italian methodology, therefore also the influence of EU/NATO levels do vary from case to case. Finally, concerning the dependencies related to second-tier or third-tier suppliers, their assessment is *de facto* left by the government and the armed forces to Italian prime contractors⁸.

THE GOLDEN POWER ON FOREIGN DIRECT INVESTMENTS (FDI) AS LAST RESORT MEASURE

As a matter of fact, the only policy measure to address dependencies on critical technologies and industrial capabilities is the FDI control mechanism applicable also to energy, telecommunication and other sectors. All aerospace, defence and security companies have to notify the occurrence of a FDI, which is screened according to the procedures set by the decree law 7/2012⁹.

Beyond that mechanism, there is no other tool to map or monitor critical dependencies, neither are in place policy measures tailored to the aerospace and defence industry. As a result, the only way to address a potential dependency is to exert the government's so-called 'golden power' to stop a foreign acquisition of an Italian company, or to pose a number of caveats to it. Actually, it constitutes a measure of last resort for a limited number of cases, which does not affect large part of defence industrial policy, whereby for example a critical dependency can be traced in a component or technology provided by a second-tier supplier to an Italian system integrator.

⁶Interview, 17th January 2022.

⁷Interview, 17th January 2022.

⁸Interview, 17th January 2022.

⁹For the law and related regulations see <https://www.governo.it/it/dipartimenti/dip-il-coordinamento-amministrativo/dica-norm-goldenpower/9299>

EUROPEAN COMPETITIVENESS AND INTERDEPENDENCIES

Against this backdrop, a peculiar criterion to discern critical technologies or industries seems to emerge from the approach adopted by the Ministry of Defence in recent years. If an industrial capability proves to be competitive at European level, either through cooperative procurement programmes or calls by EDF and its precursors¹⁰, it is deemed to be critical and so is protected accordingly¹¹. This approach looks more to industrial segments related to complex platforms such as aircrafts, helicopters, missiles or combat ships, than to specific technologies¹². It is based on the recognition that Italy's dependencies on its European partners are so important, variegated and multi-layered that it is impossible – and even futile – to map and monitor them¹³. A certain degree of dependency on like-minded countries is accepted and managed to evolve into interdependence through joint programmes (e.g., Eurofighter) and/or industrial consolidation (e.g., MBDA)¹⁴.

From an Italian perspective, an EU-wide mapping and monitoring of extra-EU dependencies on critical technologies and industrial capabilities should be pursued, because dependencies on not like-minded partners (i.e., non-NATO) could be dangerous for Italy's security of supply and European strategic autonomy. A danger that increases with the increasingly worldwide use of technologies and the multiplication of industrial policies in the context of great power competition.

Meanwhile, Italy is likely to protect and support those domestic capacities able to produce cutting-edge technologies, components and systems within bi/multinational and/or EU programmes which satisfy Italian armed forces' needs¹⁵. According to this logic, for instance the capabilities fruitfully involved in major Permanent Structured Cooperation (PESCO) or EDF projects are considered critical. In turn, these EU defence initiatives are supported also because they help Italy to frame and manage technological dependencies and interdependencies within the Union.

¹⁰Namely the Preparatory Action on Defence Research over 2018-2020 and the European Defence Industrial Development Programme in 2020.

¹¹Interview, 21st January 2022.

¹²Interview 21st January 2022.

¹³Interview 17th January 2022.

¹⁴Interview 20st January 2022; interview 21st January 2022.

¹⁵Interview 21st January 2022.

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