

# **INTELLIGENCE IN THE 21<sup>ST</sup> CENTURY**

## ANALYSIS OF FRANCE'S NATIONAL ECONOMIC INTELLIGENCE SYSTEM ARCHITECTURE

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### Abstract:

*The paper analyses the architecture of the national economic intelligence system of the French Republic, evaluating its degree of compliance in relation with a set of 12 specific characteristics for an efficient economic intelligence system. The analysis is made using the CODV tool of Six-Sigma.*

*The study validates to what extent France's national security strategy sets out directions to strengthen economic security. At the same time, the article analyses if the architecture of the national economic intelligence system facilitates efforts correlation within the intelligence community and whether the cooperation between the national economic intelligence system's entities categories can be realised. Subsequently, it is analysed whether the economic intelligence system is an integrated component of the national intelligence system, whether it allows all sources analysis and whether it facilitates the use of new technologies through intelligence cycle stages. Following the above steps, it is finally determined with what efficiency the France's economic intelligence system can provide support information needed to increase the competitiveness of the national economy. Thus, analysing areas in which the French economic intelligence system performs, were identified some good practices that can be the basis for proposals to increase the efficiency of the national economic intelligence system.*

**Keywords:** *Economic Intelligence, National Economic Intelligence System, Architecture, Entities, Links, French Republic.*

### Introduction

Studying the evolution of economic intelligence systems, referring to the current stage of their development and the stage of economic development of the countries that own them, for an analysis

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that determines sets of best practices, in this paper we chose to study the architecture of the French economic intelligence system. We consider it relevant because France: (1) is a European country that has social, political and institutional environments similar to Romania (Thijs, Hammerschmid & Palaric, 2017, p. 19-67; Uslander, 2018, p. 359-483; Roper, 2002, p. 256-259; De Meur & Berg-Schlosser, 1994, p. 201-209) and (2) has a well-developed national intelligence system (Pasquazzi, 2017, p. 505; Carayon, 2003, p. 91).

Regarding France's economic system, there are many positive assessments of its incisiveness, omnipresence, and efficiency.<sup>1</sup> Owing an extended economic intelligence apparatus, with a well-consolidated intelligence culture during time, France is recognized and feared in the field of economic intelligence (Reid, 2016, p. 797-799). The quality of the specialized education system, human resources policies, fluency and efficiency of the processes, strong inter-institutional collaboration, good cohesion, and vast social policies (Carayon, 2003, p. 10-13), all developed to support informational demarches, make the French economic intelligence system an important landmark.

The analysis of the French economic intelligence system is based on the consolidated information revealed by Annex 1, which was elaborated using the Literature Analysis, Content and Text Analysis (Walliman, 2011, p. 56-62; MacDonald & Headman, 2008, p. 66-71), Content Analysis of (Open) Web Sources listed in Annex 1.1 (Kim & Kuljis, 2014, p. 285-286; Herring, 2010, p. 237-240), as well as appealing to the specific principles of Social Network Analysis (Wasserman & Faust, 1994, p. 17-21; Olson & Lauhoff, 2019, p. 107-128),

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<sup>1</sup> According to: "Espionage? Moi?", <https://foreignpolicy.com/2013/07/02/espionage-moi/>; "On French Espionage", <https://www.lawfareblog.com/french-espionage>; "Robert Gates: Most Countries Conduct Economic Espionage", <https://thediplomat.com/2014/05/robert-gates-most-countries-conduct-economic-espionage/>; "WikiLeaks: France Leads Russia, China in Industrial Spying in Europe", <https://www.cbsnews.com/news/wikileaks-france-leads-russia-china-in-industrial-spying-in-europe/>; "France is top industrial espionage offender", <https://www.france24.com/en/20110104-france-industrial-espionage-economy-germany-russia-china-business>; "The French economic intelligence and the Intelco case", <https://moderndiplomacy.eu/2018/03/28/the-french-economic-intelligence-and-the-intelco-case/>, accessed on 20-08-2021.

applied according to Multiple Relations Model (Wasserman & Faust, 1994, p. 73-77; Carayon, 2003, p. 91-115) and Nondirectional and Directional Relations Model (Wasserman & Faust, 1994, p. 223-230; MacArthur, 1994, p. 234).

Annex 1 list the entities with an economic, intelligence or mixed role related to the French National Economic Intelligence System. The direct relationships (direct subordination within the same group of entities) are highlighted with continuous lines, and the indirect ones (no direct subordination, functional, consultative roles) with dashed lines (Carayon, 2003, p. 112). The architecture highlights the entities, grouped in four distinctly illustrated categories: the Administrative Apparatus, the Diplomatic Apparatus, the Intelligence Services, and the Business Environment. Within the analytical approach, the reporting to the role of entities is done as follows: entities with a single role; intelligence, entities with a mixed role; intelligence and economic intelligence, entities with a single role; economic intelligence. Regarding the type of relations between entities, they are categorized as follows: indirect relationship between economic intelligence entities, direct relationship between economic intelligence entities, indirect relationship between intelligence services, and direct relationship between intelligence services (Wasserman & Faust, 1994, p. 224; Arboit, 2016, p. 27).

Subsequently, by reporting to the Conceptual Framework Analysis (Jabareen, 2009, p. 52-55; Lederman & Lederman, 2015, p. 593-597), it was determined that the French economic intelligence system compliance score depends on 12 **critical characteristics**<sup>2</sup> (marked below with [6σ C]), specific to an efficient economic intelligence system. The analysis was performed using the Six-Sigma<sup>3</sup> – CDOV tool, giving

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<sup>2</sup> Those 12 characteristics were determined by the author and validated by local experts through a research which used the Delphi method, from September 2019 till March 2020. More details can be found in the author's paper "Evolutions, trends and essential characteristics of economic intelligence systems", Scientific Report, Library of "Mihai Viteazul" National Intelligence Academy, Bucharest, 2020.

<sup>3</sup> According to: Cutcher-Gershenfeld, J., "Lean/ Six Sigma Processes"; Murman, E. "Introduction to Lean Six Sigma Methods. Lecture Notes" and Pyzdek, T. "The Six Sigma Handbook".

for each characteristic a score from one (very low) to five (very high)<sup>4</sup> for compliance degree, resulting a maximum score of 60.

## **Analysis of the French Republic's economic intelligence system architecture**

### **1 | [6σ C] Qualitatively analysing the national security strategy, to what extent does it include strategic lines regarding the development and consolidation of sectors specific to economic intelligence?**

[6σ D] In the preamble of the French Republic's security strategy there are two main issues underlying the strategy base: France cannot address alone all challenges and France has global economic interests and interests regarding the access to new technologies, to flows of goods and human resources?

The strategy is structured into three parts. In Part A – "*A Rapid and Lasting Deterioration of the Strategic Environment*" it is pointed out that the rivalry, initially economic and technological, is increasingly present in the military area. Part B – "*New Forms of Warfare and Conflict*", emphasizes the need to secure land, sea, and air routes, in order to carry out the economic operations (French Presidency, 2017, p. 43-44). In Part C – "*Our Defence Strategy - Strategic Autonomy and European Ambition*", the emphasis is on "*Defence Industrial and Technological Base*"<sup>5</sup> (DITB), which supports the national economy and extends France's international influence. The technological superiority

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<sup>4</sup> In order to have a consistent analytical framework, for each critical characteristic, five analytical questions were elaborated, verifying the economic intelligence system capacity to comply with each characteristic. More details can be found in the author's paper "Comparative Analysis of the United States of America and France National Economic Intelligence Systems", Scientific Report, Library of "Mihai Viteazul" National Intelligence Academy, Bucharest, 2021. The scoring of each analytical question/characteristic was done by the author. To achieve accurate scores, in the near future we intend to carry out a Delphi study which will address representative experts.

<sup>5</sup> DITB (France's Defence Industrial and Technological Base) consists of 12 global corporations and around 4,000 small and medium-sized companies. Most of them use cutting edge technologies and have a major positive impact on France's trade balance.

and strategic autonomy of France depend on sustainability and performance of the DITB's entities (French Presidency, 2017, p. 63-72).

In addition, all sections of the strategy include elements that emphasize the need to develop economic intelligence and to protect key economic entities, but those are not focused to ensure the security of most economic actors and there are no mentions regarding concerns around the well-being of the population. Strategic autonomy remains the key objective of security policy. In this context, strengthening the DITB is a priority (French Presidency, 2017, p. 63-67). Diplomacy is seen as an inseparable component of defence, both requiring close coordination with "*civilian instruments*": Business Environment and Administrative Apparatus (French Presidency, 2017, p. 54-73).

At the same time, the defence strategy mentions that "*friction and confrontation are no longer restricted to disputed geographical areas, but now involve the digital domain as well*" (French Presidency, 2017, p. 13), becoming, "*subject of intense strategic competition*" (French Presidency, 2017, p. 45). Therefore, because cyberspace makes the usual distinction between peace, crisis, and war unclear, France has decided to adopt "*a permanent cybersecurity posture*", achieving a substantial increase of specific capabilities, in order to engage specific defensive or offensive operations in the digital (French Presidency, 2017, p. 47-90).

[6σ 0] In conclusion, the economic component is a transversal one in the 2017 macro-strategy, without having a central position in France's security strategy. France treats economic issues in a general note, excepting DITB, the French state providing support for all DITB economic entities (French Presidency, 2017, p. 63-64). Without being approached from an economic intelligence perspective, new technologies and cybersecurity are considered critical.

[6σ V] Thereby for Question one, on a scale from one to five, given that strategic measures are envisaged, but are not framed in an economic picture, three is the value which describes how the national security strategy meets the needs of economic intelligence.

## 2 | [6σ C] Analysing the structures of the national intelligence system and the national economic intelligence, how do you appreciate that the economic intelligence system is integrated into the national intelligence system architecture?

[6σ D] Analysing the overlaps between the national intelligence system and the national economic intelligence system, as presented in “Annex 1 – National Intelligence System and National Economic Intelligence System of France”, we noticed that out of a total of 60 entities, 39 have an exclusive role within the national economic intelligence system, 11 have an exclusive role within the national intelligence system and another 10 entities have a mixed role.

Both from defensive and offensive perspectives, the information collected from the Business Environment by entities from key ministries of the economic intelligence system (Ministry of Higher Education, Research and Innovation, Ministry of Economy and Finance, and Ministry of Europe, Foreign Affairs and the Diplomatic Apparatus) are consolidated at the level of the Prime Minister and of the Government Information Service (SIG). Information which is delivered by Intelligence Services is consolidated at the level of the General Secretariat for Defence and National Security (SGDSN)/ Defence and National Security Council (CDSN) and the President of the French Republic.

Integration between the categories of entities is made at the level of the President where the connection between Intelligence Services, Administrative Apparatus, Diplomatic Apparatus, and Business Environment entities is made through the SIG, the CDSN and advisory entities: Council of Economic Analysis (CAE), Centre for Research and Expertise on the World Economy (CEPII) and the Economic, Social and Environmental Council (ESEC). At the same time, integration of intelligence delivered by the Administrative Apparatus, the Diplomatic Apparatus and the Intelligence Services is realized at the level of the Prime Minister, through direct communication channels.

[6σ O] Relating (quantitatively) strictly to the number of entities, there is a 47.6% overlap.<sup>6</sup> The information that supports the

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<sup>6</sup> The percentage resulted from the ratio between the number of entities with a mixed role (intelligence and economic intelligence) and the number of entities that are part of the national intelligence system (Annex 1.2 – “Entities and Relationships”).

offensive and defensive economic roles is centralized at the President, SIG and CDSN levels. This fact gives the advantage of an integrated vision but may have the disadvantage of a lack of specialization.

[6σ V] In conclusion, we consider that a score of four best describes the degree of national economic intelligence system integration into the national intelligence architecture.

### **3 | [6σ C] Analysing the national intelligence system structure and the national economic intelligence system structure, on a scale from one to five, what do you consider to be the offensive orientation of the national economic intelligence system?**

[6σ D] Analysing Annex 1, we notice that DGSE (including the Economic Security Division) and the Directorate General for International Relations and Strategy (DGRIS) have an active role in collecting economic information and conducting external operations to support distinct economic initiatives. The CDSN ÷ SGDSN tandem and the SIG also play an active support role. The Diplomatic Apparatus and the National Intelligence and Counter-Terrorism Coordination (CNRLT) could provide tactical support.

The Administrative Apparatus integrates, consolidates, and provides information for the Business Environment through specialized portals such as [service-public.fr](http://service-public.fr), [legifrance.gouv.fr](http://legifrance.gouv.fr), [data.gouv.fr](http://data.gouv.fr). At the same time, Business France, BPI France, and the Diplomatic Apparatus, seconded by the Chambers of Commerce and Industry (CCI) and private companies such as AFNOR Group, ADIT Group or COFACE, collect, integrate, correlate, and deliver information to the Business Environment, supporting in an active manner the business actors. Other entities that collect and process information intended to support external economic operators are CNSR – INIST, CSR, ESEC, CEPII and CAE. Both BPI France and the CCI have direct links with the Business Environment. The CCI is actively involved, provides support to external economic entities, and ensures their connection with the Administrative Apparatus. Situationally, the Diplomatic Apparatus can also support certain economic entities of the Business Environment, at the same time being the vehicle (vector) through which the Intelligence Services could provide support to the economic entities, the French

intelligence community not having direct channels of communication with the Business Environment.

[6σ O] In conclusion, only situationally, the external intelligence system and the Diplomatic Apparatus can play an active role in the national economic intelligence system. The Administrative Apparatus, integrated in the national economic intelligence system's architecture, is able to take offensive roles.

[6σ V] Thereby, for question three, we consider that four is the value that describes the offensive orientation of the national economic intelligence system, taking into consideration the fact that there are no direct lines of communication between the Diplomatic Apparatus, Intelligence Services, and the Business Environment.

#### **4 | [6σ C] Analysing the structure of the national intelligence system and of the national economic intelligence system, on a scale from 1 to 5, what do you consider to be the defensive orientation of the national economic intelligence system?**

[6σ D] There are entities within the Administrative Apparatus<sup>7</sup> that can collect economic information and disseminate it at the level of the SIG, Prime Minister, CDSN, and President of the French Republic. DGSI, DRSD and DGRIS have an active role to play in collecting economic information and conducting internal operations, designed to support certain economic initiatives. The CDSN ÷ SGDSN tandem and the SIG have an active role, and the DGSI and the CNRLT have the capacity to provide tactical support for certain economic actors of Business Environment. Situationally, the Ministry of Economy and Finance can also join. At the same time, [data.gouv.fr](http://data.gouv.fr), [service-public.fr](http://service-public.fr)

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<sup>7</sup> The Ministry of Economy and Finance through the National Directorate of Customs Information and Investigations (DNRED), the Directorate for Information Processing and Action against Illegal Financial Circuits (TRACFIN) and the General Directorate of Social Cohesion collect and disseminate economic information. Other entities that collect and process information meant to support the internal economy are the Institute of Scientific and Technical Information (CNSR - INIST) and the Strategic Research Council (C.S.R) within the Ministry of Higher Education, Research and Innovation and the Economic, Social and Environmental Council, Centre for Research and Expertise on the World Economy (CEPII) and the Council of Economic Analysis (CAE) assisting the French Presidency and the Prime Minister.

and [legifrance.gouv.fr](http://legifrance.gouv.fr) have the role of integrating and consolidating the information mainly from the area of the Administrative Apparatus, then some sets of information from Diplomatic Apparatus and the Intelligence Services and of making them reachable for Business Environment. Both from offensive and defensive perspectives, the CCI has the capacity to communicate directly and provide support to all entities of the Business Environment engaged in internal or external activities. At the same time, the CCI has the capacity to connect the Business Environment with the Administrative Apparatus. This creates channels through which the SIG, CDSN/ SGDSN can situationally provide support to the Business Environment, being also a vehicle for the French Intelligence Services.

[6σ O] In conclusion, France's national internal intelligence system has an active role, collecting and disseminating economic intelligence, the internal public and the Administrative Apparatus having the capacity to play an active role. There are channels through which economic information can be collected and disseminated to and from internal Business Environment and there are available mechanisms through which the economic intelligence system entities are able to provide support and ensure the security of economic operations.

[6σ V] We can appreciate that for the fourth question, four is the value that describes the defensive orientation of the national economic intelligence system, considering that, regarding the existence of direct communication channels between the Intelligence Services, the Diplomatic Apparatus, and the Business Environment, and those are not at a full scale.

**5 | [6σ C] Analysing the architecture of the national economic intelligence system, referring strictly to the relations between the Administrative Apparatus, Business Environment, Diplomatic Apparatus, and Intelligence Services, from a structural point of view, is there a possibility of effective collaboration, synchronization of efforts and mutual support between all sectors?**

[6σ D] The connections between the Intelligence Services and the Business Environment that make up the Business Environment are made through two routes: offensive ÷ external (Intelligence Services

(DGSE) ÷ CNRLT / CDSN ÷ French Diplomacy / Ministry of Europe and Foreign Affairs ÷ Business Environment) and defensive ÷ internal (Intelligence Services (DGSII) ÷ SIG ÷ Ministry of Higher Education, Research and Innovation / Ministry for Economy and Finance ÷ Business Environment). The system's architecture ensures indirect communication between the Diplomatic Apparatus and the Business Environment. At the same time, there is another channel: the Diplomatic Apparatus ÷ Ministry of Europe and Foreign Affairs ÷ CCI ÷ Business Environment. Other intermediaries, similar to CCI, may be the private companies specialized in business and competitive intelligence (ANFOR, COFACE, ADIT), consulting companies or investment funds. Through the CCI, the system's architecture allows direct communication between the Administrative Apparatus and the Business Environment.

[6σ O] In conclusion, there are communication channels, areas of interference between Intelligence Services, the Diplomatic Apparatus, and the Administrative Apparatus, but there is no direct institutional communication between the Intelligence Services and the Business Environment (Arboit, 2016, p. 27-28). The system's architecture provides communication channels between the Diplomatic Apparatus, the Administrative Apparatus, and entities of the Business Environment.

[6σ V] For question five we give the score four, because the system architecture does not provide direct communication between Intelligence Services and the Business Environment.

**6 | [6σ C] Analysing the national economic intelligence system structure, strictly referring to the relations between the Administrative Apparatus, the Business Environment, the Diplomatic Apparatus, and the Intelligence Services, can we consider that the economic organizations involved in international trade are supported?**

[6σ D] Business community can directly receive support and assistance from CCI. At the same time, situationally, the Ministry for Europe and Foreign Affairs through its directorates is also able to support business community. The Diplomatic Apparatus can provide

indirect support to the Business Environment. The SIG connects the Intelligence Services with the Administrative Apparatus.

[6σ O] The conclusion is that the architecture of the economic intelligence system allows, in a situational manner, the Administrative Apparatus and the Diplomatic Apparatus to provide support to entities of the Business Environment engaged in international trade.

[6σ V] For question six, we set a score of three points, because the economic intelligence system architecture allows the Intelligence Services, the Administrative Apparatus, and the Diplomatic Apparatus to directly support economic to entities of the Business Environment involved in international trade, only in certain situations.

**7 | [6σ C] Structurally, is it possible to set and calibrate direct communication between entities. Moreover, can the structure of the economic intelligence system allow strict procedures implementation?**

[6σ D] The architecture of the French national economic intelligence system meets the basic requirement for the implementation of a platform that ensures efficient real time communication, respects the information security requirements, and facilitates information management. Thereby, between the Administrative Apparatus entities and the Business Environment there is a direct, two-way communication through the CCI. At the same time, between Diplomatic Apparatus and the Business Environment direct channels can be implemented, with the Ministry of Europe and Foreign Affairs as a vector. Also, the system structure allows direct communication between the Intelligence Services and the Diplomatic Apparatus. Regarding the communication between the Intelligence Services and the Administrative Apparatus, it can be realised through SIG. Intelligence Services do not directly communicate with the Business Environment, those only collect information.

[6σ O] In conclusion, structurally, it may be possible to calibrate the communication between entities. The structure of the economic intelligence system partially allows the implementation of strict procedures for three of the five possible communication channels.

[6σ V] Consequently, for question seven the score is three.

**8 | [6σ C] Does the system structure allow the adoption and use of the new technologies to facilitate collection from multiple sources, efficient processing, and dissemination of information between Intelligence Services and other entities of the system?**

[6σ D] From the analysis of the flows outlined in Annex 1, we find that the architecture of the system allows the continuous and structured data collection from the Diplomatic and Administrative Apparatuses, as well as from the Business Environment. Both, collection, and information processing, can be done technologically. However, with regard to the information dissemination to certain Business Environment entities, excepting CCI, no other direct communication channels have been identified.

[6σ O] The system architecture allows adoption and use of new technologies to facilitate multiple sources collection and efficient information dissemination between Intelligence Services and other entities.

[6σ V] Consequently, for question eight, we consider that five points can be awarded.

**9 | [6σ C] Does the structure of the system allow the Diplomatic Apparatus to systematically collect economic and strategic information from the Business Environment?**

[6σ D] From the analysis of Annex 1, we notice that the Diplomatic Apparatus plays a situational role in the Business Environment, thereby, it can collect information punctually, but not in a continuous and systematic manner. Consequently, it is unlikely to collect and aggregate strategic information in an efficient manner. This category of information may be systematically collected by other entities, such as CCI, BPI France, or other entities within the Administrative Apparatus, thus respecting centralization tendency of the French EI system.

[6σ O] The structure of the system allows the Diplomatic Apparatus to situationally collect mainly tactical economic information from Business Environment.

[6σ V] Indirect communication channels are set mainly between the Intelligence Services and the other categories of entities. Consequently, we award three points for question nine.

**10 | [6σ C] Can system architecture facilitate all sources analyses and integrate in the analytical approach types of information, other than those from Diplomatic Apparatus and Intelligence Services, as multiple sources databases, private sources, and other information collected from non-intelligence sources?**

[6σ D] Analysing the French IE system's entities and their relationships, we see that Intelligence Services can collect, mainly through indirect channels, domestic business information, foreign business information, as well as information from local and foreign professional databases.

[6σ O] Intelligence Services can build through functional communication channels a unique database that integrates all types and categories of sources.

[6σ V] Thereby, for question 10 the score is three, given that at least two layers of entities are interposed between the Intelligence Services and the Business Environment, which can make extended collection and all sources' analyses difficult.

**11 | [6σ C] Internally, does the architecture of the economic intelligence system allow for the monitoring of all key areas?**

[6σ D] Information from academia and research institutes is monitored and consolidated at the SIG level, with a direct line of communication between areas. In the same way, the political and legal information is consolidated at the SIG and CDSN levels. The Intelligence Services actively monitor media and social media, the information being consolidated at the level of the CNRLT. However, in terms of strengthening domestic and foreign economic information, the tandem DGSE ÷ Department of Economic Security and Department of Cyber Security within DRSD, which can allow effective monitoring and an increased response capacity.

[6σ O] In conclusion, the national economic intelligence system structure allows for the monitoring of the main key areas, but functional communication channels affect the agility of the system.

[6σ V] We note that the system architecture allows monitoring of most key areas; consequently, for question 11 the score is four.

## 12 | [6σ C] Structurally, can people and private overseas investments be properly protected?

[6σ D] The tandem of DGSE ÷ the Department of Economic Security and the Department of Cyber Security within DRSD, can successfully monitor and detect threats to external assets and key personnel operating outside French territories. The same structure can monitor key people and entities that can influence the overseas competitive Business Environment. At the same time, at the level of the CNRLT or the SIG, involving the Diplomatic Apparatus, the necessary countermeasures can be drawn up and implemented to counteract these types of threats. Regarding the macro-environment monitoring, it can be done by the specific ministerial directions, the information being consolidated at the level of the SIG.

[6σ O] In conclusion, the system architecture allows the monitoring of threats to assets and key personnel operating abroad, with some shortcomings related to the operationalization of countermeasures.

[6σ V] For question 12, the score is four, as there are levers through which people and private investments overseas can be protected.

## Conclusion regarding the French National Economic Intelligence System

Following the analysis of the French national economic intelligence system architecture, centralizing the above conclusions, referring to the system's efficiency from a structural point of view, we get an aggregate score of 44 points out of a maximum of 60, which results in a yield of 73.3% (out of 100%):

the critical characteristics of France's national intelligence economic system		Maximal Score	France's Score
		60	44
1	national defence strategy contain lines regarding economic security	5	3
2	national E.I. system should be embedded into the national intelligence one	5	4
3	the national E.I. system should adopt the offensive roles	5	4
4	the national E.I. system should adopt the defensive roles	5	4
5	efficient cooperation between intelligence ÷ administration ÷ diplomacy ÷ business	5	4
6	E.I. system entities support the economic organizations and the international trade	5	3
7	fast and easy communication between the all categories of entities	5	3
8	adoption and use of new technologies in all stages of intelligence cycle	5	5
9	diplomacy collect and disseminate economic and strategic information	5	3
10	all sources analysis is essential in the E.I. processes	5	3
11	monitoring of all key intelligence areas is essential in the E.I. processes	5	4
12	E.I. system entities protect people and private investments from abroad.	5	4

**Figure 1:** Aggregate score of the French national economic intelligence system architecture analysis (authors' idea)

The French economic intelligence system is integrated into the intelligence ecosystem, being a mature system, with proven results and sets of good practices consolidated over time (ieee, 2003, p. 18-19). It is a complex system that operates on a global scale, with an increased focus on the French territories<sup>8</sup> (ieee, 2003, p. 21-22). The intelligence integration and consolidation is mainly performed at the level of the Prime Minister ÷ Presidency (with specific adjacent entities), which creates a certain “*bureaucratization*” of communication and partially affects the agility of the system (Arboit, 2016, p. 26-29; Denece, 2020, p.5). However, we are dealing with one of the most efficient economic intelligence systems in the world (Pasquazzi, 2017, p. 506) which stands out by:

- **a good segmentation of expertise.** The expertise is consolidated at the level of each ministry through specific organizations, structures and substructures (ieee, 2003, p. 54). For example, at the Ministry for Europe and Foreign Affairs level we have AFD, CFI, CIRAD, IRD, Business France, France Media Monde but also BPI.

<sup>8</sup> We refer to: Guadeloupe, French Guiana, Martinique, Réunion, Mayotte, but also to French Polynesia, Saint Pierre and Miquelon, Wallis and Futuna, Saint Martin, Saint Barthelemy, New Caledonia or the French southern and Antarctic territories.

Inter-ministerial consolidation takes place at the level of CEPIL, ESEC and CAE, supporting the Presidency and the Prime Minister. The aggregation of all information (but also of knowledge and expertise) is made at the level of the SIG that communicates directly with SGDN ÷ CDSN.<sup>9</sup>

- **a good correlation and efforts concentration to deal with strategic situations** that may have a negative impact at national or DITB levels. Consolidations are made at the Prime Minister level, integrating all data collected by the SIG, SGDN ÷ CDSN, the Ministry of Armed Forces, the Ministry of Interior and the CNRLT. Thus, a comprehensive image is provided, with information from all areas of interest. At the same time, concerning risk situations or strategic issues, all available levers can be addressed, and all available resources engaged, allowing firm and efficient countermeasures (Gagliano, 2016, p. 5). France is now trying to transfer these practices and disseminate expertise at European level. In September 2017, President Emmanuel Macron suggested a European Intervention Initiative (EI2) as part of his vision of a “sovereign Europe united and democratic” (Zandee & Kruijver, 2019, p.1). Some voices have labelled the proposal as the launch of a European intervention force. EI2 aims to bring together capable and willing European countries to better prepare for future crises - not by creating a new passive reaction force, but by ultimately creating a common pro-active strategic culture. Ten European countries have joined France’s initiative (Zandee & Kruijver, 2019, p. 1-4).

- **an academic system that created precise specializations for most professionals, allowed clear expertise segmentation, and formed extensive global networks of specialists.** We are referring to a complex system, built over time, which allows a good specialization, the consolidation of knowledge specific to a certain segment and the efficient transmission of information between generations of professionals, necessary to ensure continuity (Pasquazzi, 2017, p. 513-154). We mention here the National School of Administration, the National Institute of Higher Security and Justice Studies (INHESJ), Institute of Highers National Defence Studies (IHEDN), the Intelligence

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<sup>9</sup> Please see “Le Conseil de défense et de sécurité nationale”, at: <https://www.elysee.fr/la-presidence/le-conseil-de-defense-et-de-securite-nationale>, last accessed on 21st of August 2021.

Academy and School of Economic Warfare (EGE) (Harbulot, 2021, p. 52-55). For example, it is extremely difficult to identify, in a management position in the Administrative Apparatus, a person who has not attended the courses of the National School of Administration. In this academic system, EGE (*"Ecole de Guerre Economique"*) has a special role (Gagliano, 2016, p. 7). Created in 1997 at the recommendation of the Economic Intelligence Commission, this is the place where the executives of French strategic interest companies are currently prepared (Harbulot, 2021, p. 52-53). With the passage of time, this network has been extended at an international scale. Moreover, with a diversified program adapted to the current context, in the last 25 years it has been turned into a network with more than 2,000 economic intelligence experts, key people holding executive positions in strategic companies spread all over the globe. EGE's alumni network comprise over 30 clubs, grouped by territories (eg "Club Russie", "Club Suisse", "Club Asia") and areas of interest (eg "Club Start-up & Innovation", "Club Data Intelligence", "Club Analyze").<sup>10</sup>

**- an academic system that has created a genuine security culture throughout society.** *Worth noticing is the project initiated in 2003 by Bernard Carayon (with the "Carayon Report"). The project aimed to strengthen the culture of (economic) security at all levels of society and to achieve social cohesion. This approach has continued over the years and has been directly reflected in public policies (Gagliano, 2018, p. 1-3). Today, within the Ministry of Economy and Finance, there is the General Directorate of Social Cohesion that elaborates specific strategies and follows their implementation and efficiency (Pasquazzi, 2017, p. 508).*

The French economic intelligence system is characterized by efficient and vigorous actions, performed in a firm manner. They are possible through a good mobilization of forces by the coordinating and commanding entities around the president ÷ prime-minister tandem. Command and coordination cluster is focused mainly on strategic actions, aiming to support strategic companies and DITB entities, other economic operators being out of its scopes (Tarlogic, 2019, p. 1-3). At the same time, specialization and consolidation of knowledge specific to

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<sup>10</sup> Please see "ALUMNI EGE", at: <https://www.aege.fr/>, last accessed on 21<sup>st</sup> of August 2021.

a certain segment at the level of each ministry (and academic institutions) ensures continuous progress and efficient transmission of information between generations of professionals, but, in the case of complex actions involving knowledge and specialists from different areas, the coordination and command entities also have the role of bringing together diverse expertise (Harbulot, 2021, p. 52-55).

Continuous efforts to achieve and strengthen social cohesion have allowed both a good collection, from multiple sources and an efficient dissemination of information, most economic entities being thus involved and responsible. At the same time, the formation of a security culture down to the level of each economic operator has created over time a certain “*collective immunity*” (Gagliano, 2016, p. 5). Even if the French economic intelligence system does not aim to protect or directly support economic agents, each economic entity can decide and operationalize its own measures of a defensive or offensive nature, in this context the role of the EGE being even better defined. Attempts were thus made to compensate for the lack of agility by transferring knowledge to most economic operators (Gagliano, 2018, p. 1-3).

In conclusion, France’s economic intelligence system allows the adoption of new technologies at the level of entities specific to the Administrative Apparatus, the Diplomatic Apparatus, and the Intelligence Services (Gagliano, 2017, p. 49680). At the same time, being a centralized system, controlled from the level of the president and the prime minister, for sensitive strategic topics, integration and all required correlations with the Intelligence Services are easily ensured. Regardless of the nature of the operations, offensive or defensive, the economic intelligence system allows the efficient addressing of situations with strategic impact, subscribed to the national interest. At the same time, the creation of a central command structure facilitates good monitoring of key economic areas (Tarlogic, 2019, p. 1-3).

All these are possible because the national security strategy reflects economic intelligence as a necessity for the protection of DITB and strategic economic entities and, consequently, these directives are transposed into Intelligence Services missions (Gagliano, 2017, p. 49682). The national economic intelligence system entities have well-defined roles and clearly outlined objectives, information

superstructures that facilitate communication being created and, at the same time, ensuring the consolidation of strategic information (Tarlogic, 2019, p. 1-3). Also, there is a specialization of entities, as there are clusters of experts, as the level of ministries, which facilitate expertise consolidation and ensure a good knowledge transfer between generations of professionals. At the same time, cross-cutting projects related to research, development, and implementation of cutting-edge technologies in the field of defence and security are supported (Pasquazzi, 2017, p. 513-154). The academic system supports in a concerted manner the development of economic intelligence by facilitating the creation of extensive professional networks and a true culture of intelligence throughout society and French Administrative Apparatus implements public policies and coherent programs to achieve good social cohesion and to form a veritable security culture down to the level of each economic entity (ieee, 2003, p. 56-57).

### **Conclusions of the work**

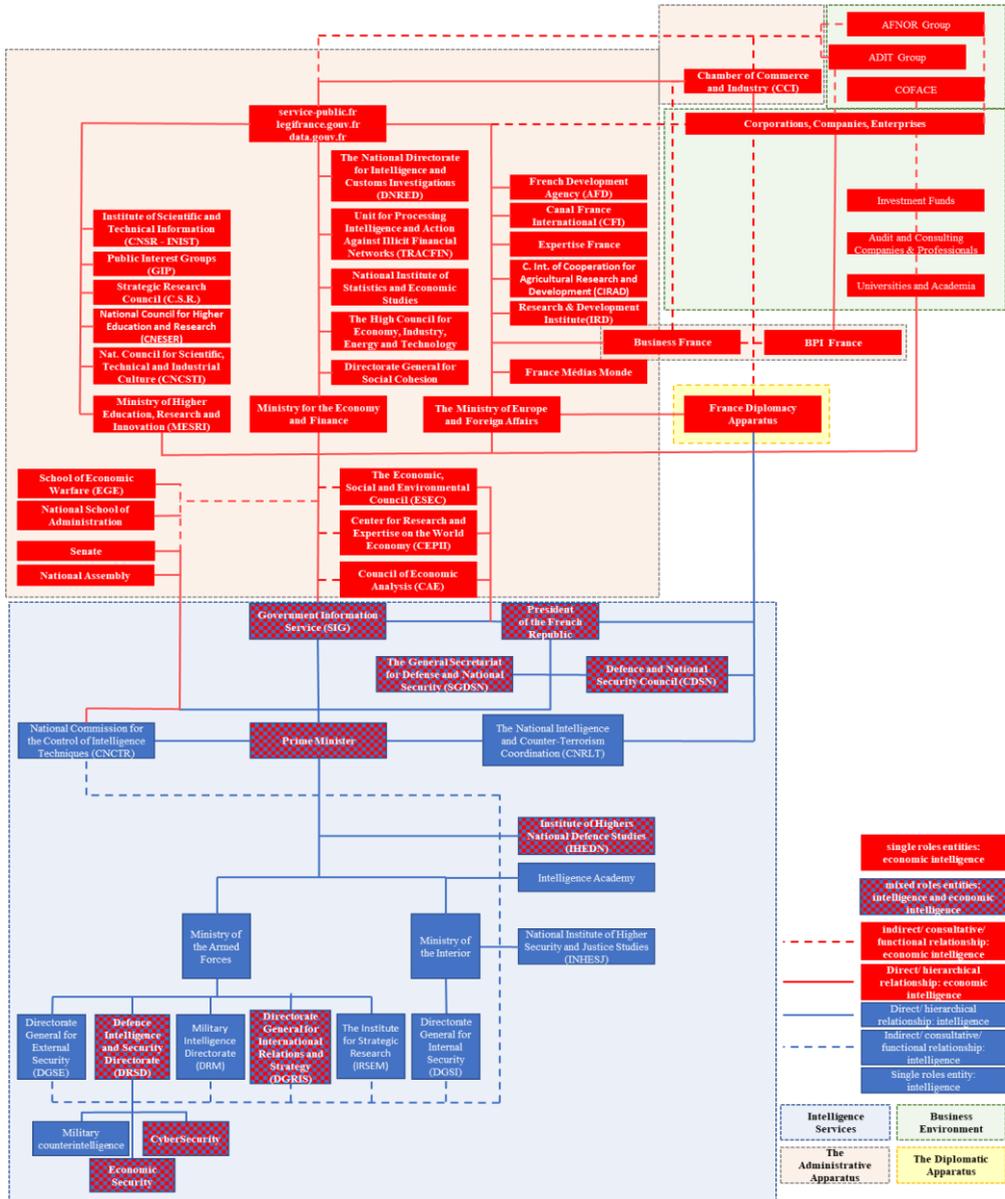
The paper determined the following set of good practices of the French economic intelligence system, as follows:

- economic intelligence is reflected as a need in the national security strategy and, as a consequence, those strategic directives are transposed into missions of Intelligence Services;
- the national economic intelligence system entities have well-defined roles and their objectives are clearly set;
- intelligence superstructures are created to facilitate communication, while also facilitate the consolidation of strategic intelligence;
- there is a specialization of the entities, as there are clusters of experts at the level of the ministries, which allows expertise consolidation and ensures a good transfer of it between the generations of specialists;
- cross-cutting projects related to research, development and implementation of cutting-edge technologies in the field of defence and security are priority supported;
- the academic system supports, in a concerted manner, the development of economic intelligence by facilitating the creation of

extensive professional networks and a true culture of intelligence throughout society;

- coherent public policies and programs are implemented in order to achieve a good social cohesion and to form a true culture of security down to the level of each economic entity.

## Annex National Intelligence System and National Economic Intelligence System of France Entities and Relationships



**The architecture of the French national economic intelligence system from Annex 1.2 was elaborated based on the following list of entities and web references, latest accessed on 20th of August, 2021:**

- <http://www.cae-eco.fr/Presentation-in-english>
- <https://www.lecese.fr/en>
- <http://www.cepii.fr/CEPII/fr/welcome.asp>
- <http://www.sgdsn.gouv.fr/le-sgdsn/fonctionnement/le-secretariat-pour-le-conseil-de-defense-et-de-securite-nationale/>
- <https://www.elysee.fr/>
- <https://www.gouvernement.fr/ministre/jean-castex>
- <https://www.gouvernement.fr/secretariat-general-pour-l-investissement-sgpi>
- <https://www.conseil-national-industrie.gouv.fr/>
- <https://www.gouvernement.fr/en/everything-you-should-know-about-the-saip-public-alert-mobile-app>
- <https://forum.wordreference.com/threads/sig-service-dinformation-du-gouvernement.2947974/>
- <https://www.atinternet.com/en/resources/resources/french-gouvernement-information-service-sig/>
- <https://www.elysee.fr/cnrlt>
- <https://www.senat.fr/>
- <https://www.assemblee-nationale.fr/>
- <https://www.cnctr.fr/>
- <https://www.interieur.gouv.fr/Le-ministere/DGSI>
- <https://www.defense.gouv.fr/ministre>
- <https://www.defense.gouv.fr/dgse>
- <https://www.drds.defense.gouv.fr/>
- <https://www.defense.gouv.fr/ema/directions-services/direction-du-renseignement-militaire/la-drm>
- <https://www.defense.gouv.fr/dgris>
- <https://www.irsem.fr/>
- <https://www.economie.gouv.fr/ministeres#>
- <https://www.economie.gouv.fr/ministeres#popin-120796>
- <https://www.economie.gouv.fr/ministeres#popin-38864>
- <https://www.insee.fr/fr/accueil>
- <https://www.economie.gouv.fr/tracfin>

- <https://www.douane.gouv.fr/fiche/la-direction-nationale-du-renseignement-et-des-enquetes-douanieres>
- <https://www.enseignementsup-recherche.gouv.fr/>
- <https://www.enseignementsup-recherche.gouv.fr/cid134437/le-conseil-national-culture-scientifique-technique-industrielle.html>
- <https://www.enseignementsup-recherche.gouv.fr/cid53497/le-conseil-national-de-l-enseignement-superieur-et-de-la-recherche-c.n.e.s.e.r.html>
- <https://www.enseignementsup-recherche.gouv.fr/pid25366/acces-thematique.html?theme=369&subtheme=370>
- <https://www.inist.fr/>
- <http://www.cnrs.fr/fr>
- <https://www.gouvernement.fr/ministere-de-l-europe-et-des-affaires-etrangeres>
- <https://www.francemediasmonde.com/ro/>
- <https://www.businessfrance.fr/>
- <https://www.bpifrance.fr/>
- <https://www.ird.fr/>
- <https://www.cirad.fr/accueil>
- <https://www.expertisefrance.fr/web/guest/accueil>
- <https://cfi.fr/fr>
- <https://www.afd.fr/fr>
- <https://www.diplomatie.gouv.fr/en/the-ministry-and-its-network/maedi-21-global-diplomacy-for-the-21st-century/>
- <https://www.ege.fr/index.php/l-ecole.html>
- <https://www.ena.fr/eng/>
- <https://www.ihedn.fr/>
- <http://www.academie-renseignement.gouv.fr/>
- <https://inhesj.fr/>
- <https://www.cci.fr/web/portail-acfci/accueil>
- <https://www.adit.fr/>
- <https://www.afnor.org/>
- <https://www.coface.fr/>

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