

# Morocco Emergence in Global Value Chains: Four exemplary industries

By Abdelmonim Amachraa<sup>1</sup> & Bertrand Quelin

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Global value chains (GVCs) are intended to fragment global production among several countries and companies. In this context, national economies have begun processes of insertion and specialization with both social and green objectives, because multinationals (MNEs) create significant negative externalities. Morocco has chosen to develop an integrated economy in global businesses. This country relies on a long-term political vision and some modern infrastructures. The government provides a subsidy to industrial ecosystems and supervises access to bank credits. Various international institutions recognize the model of integration of the Moroccan economy in the different GVCs as an effective model. However, it is interesting to compare and analyze different types and levels of insertion of activities in GVCs. This paper examines four different cases: phosphate, automotive, textile, and agri-business. A new generation of "Government-multinational firms" contracts has been initiated, as part of the Kingdom's new development model, to strengthen the local economic factories and SMEs and adapt to challenges. This paper focuses on analyzing the main challenges and assessing the primary main challenges and evaluate the GVC potential. We show Morocco's participation in GVC includes levers such as public governance, value sharing, renewable energy development, investment in human capital, and orientation towards the knowledge-sharing economy and new technologies.

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## **POLICY PAPER**

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By  
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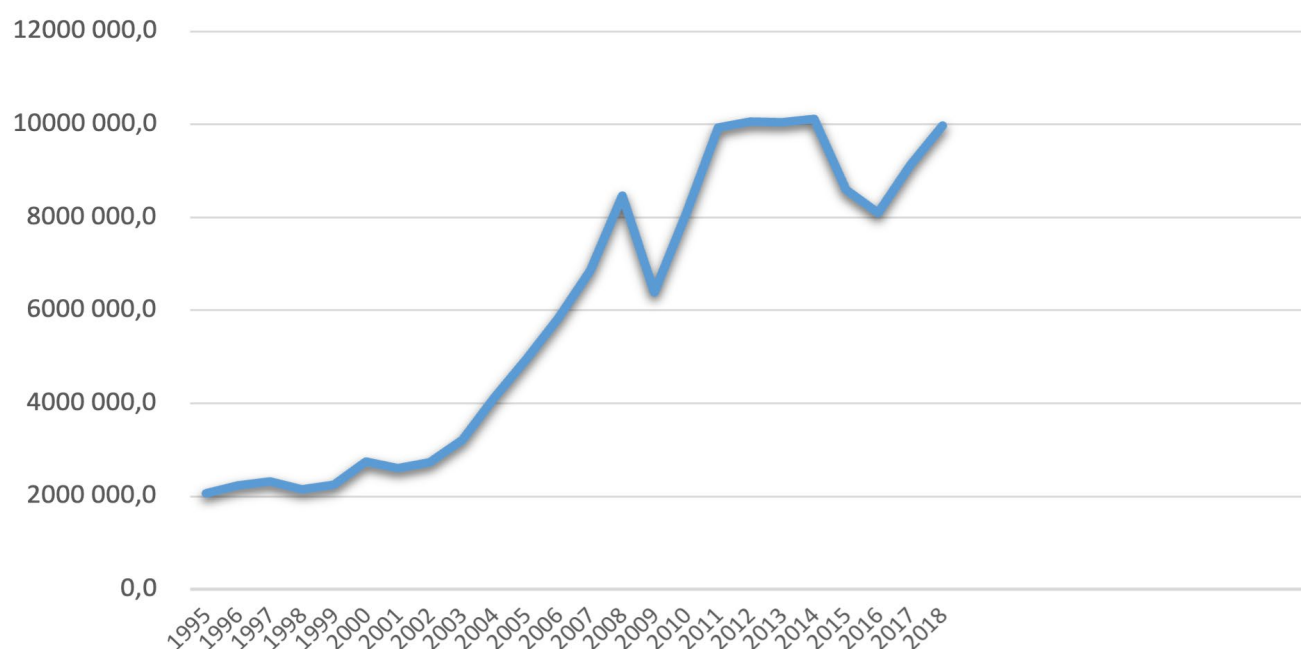
## INTRODUCTION

Global Value Chains (GVCs) occupy a prominent place in the global economy. They contribute 60% of world trade and directly employ about 453 million people (UNCTAD, 2019; OECD, 2021; ILO, 2016). According to the World Bank's Report on Trade for Development in the Era of Globalization of Value Chains<sup>2</sup>, countries in GVC networks have benefited from increased foreign direct investment, productivity, additional jobs, and improved living standards of local populations. Not to mention the opportunity to access the technology and know-how of multinational firms.

Since the 90s, the dynamics of GVC have grown at an average annual rate of around 8%, more than double the growth recorded by global GDP (OECD, WTO, 2021). Thus, trade in value-added has proliferated since the 90s; it increased from 2071 to 9,976 billion US dollars between 1995 and 2018 (OECD Tiva database, 2021).

Figure 1:

### Trade of GVC (US Dollar, Millions)



Source: OECD

Driven by markets and technologies, GVC trade has therefore evolved a lot since the 90s: The creation of the WTO in 1995, multiplication of free trade agreements between countries, acceleration of the fragmentation of world production, better integration of suppliers and customers into the environment of multinationals and national reforms, etc.

However, GVCs face new industrial, social, and environmental challenges, and countries' participation in GVC is becoming increasingly complex, requiring difficult economic preparation and reforms. More recently, the disruption of supply chains has been widely felt in all countries and at all levels of economic sectors, leading to lower productivity and incomes. In addition to this latent crisis, which has continued to intensify since the 2008 global financial crisis, there are growing risks raised by trade conflicts and climate change challenges.

2. <https://openknowledge.worldbank.org/handle/10986/32437>

Nevertheless, Morocco is already among the countries where the GVC integration model is relatively effective and continuous improvement. Indeed, Morocco's level of participation in GVC is much more competitive than in many African countries (World Bank, 2012 & 2020). In addition, the Kingdom launched 2021 a new development model that aims at a sustainable and innovative industry<sup>3</sup>. In this context, it is possible to launch new economic opportunities within the GVC around sustainable development, especially the issue of renewable energies. It is indeed a question of showing the heavy trends and impacts of GVCs: What are the effects of the fragmentation of world production? How do international firms organize their production within the GVCs? What is the link between a country's development and GVCs? Does the emergence of the Moroccan Kingdom necessarily go through Global Value Chains? What are the major challenges of integrating the Moroccan economy into the GVCs?

This paper aims to analyze the challenges and prospects of integrating the Moroccan economy into the global economy. The ambition of this research is by no means to offer a review of the Moroccan economy and the four selected GVCs.

The objective of this research is to:

- Rethink and develop an approach to integrate Morocco into the GVCs and to serve the socio-economic development of the sites where the GVCs are in coherence with the service of the New Development Model<sup>4</sup>,
- Reflect on relevant, , and innovative investment programs into four GVCs,
- Define the operating model for SMEs, MFEs, and public authorities, and identify the new positioning of Morocco.

More specifically, the objective of this work is to rethink the integration of Morocco into complex and straightforward GVCs. Thus, our paper can be summed up around the following dilemma:

- Competitiveness<sup>5</sup>: How to improve Moroccan added value in the recovery of complex GVCs and continue to guarantee its partners/customers products and services at the best value for money.
- Adaptation<sup>6</sup>: How is Morocco preparing for new industrial, social, and environmental challenges to meet new customer expectations but also to ensure maximum well-being with the fairest use of resources.
- Since the 2000s, Morocco has chosen to develop an open and integrated economy in global businesses. It relies on a long-term Royal vision, its strategic location 14 km from Europe, its modern infrastructures (the High-speed Train (HST)<sup>7</sup> and the Tangier Med port<sup>8</sup> are the

3. <https://wsimag.com/economy-and-politics/66084-moroccos-new-development-model>

4. [https://www.csmd.ma/documents/CSMD\\_Report\\_EN.pdf](https://www.csmd.ma/documents/CSMD_Report_EN.pdf)

5. The factors of a country's competitiveness in each GVC can be grouped into three main components relating to economic capital (infrastructure, equipment, etc.), human capital (education, training, etc.) and natural capital (natural and cultural resources).

6.«Adaptation refers to the ability of a country, company or community to adapt to extreme change to mitigate the potential damage, take advantage of the opportunities it presents, face its consequences and finally regain a positive perspective after the crisis.» This capability attempts to assess how national economies and companies integrated into GVC may react once they are confronted with the potential impacts of global change or disruption in supply chains. The factors generally used to assess a country's adaptive capacity range from social capital to human capital, to the size of the industry or economy in question, through the level of education, to governance structures.» Concept adapted from the definitions of the World Bank, UNDP, USAID, FAO and OCED.

7. <https://en.wikipedia.org/wiki/Al-Boraq>

8. <https://www.tmpa.ma/en/>

hallmarks), its political stability as well as its public-private program contracts called “industrial ecosystems. Thus, and over the years, the Kingdom has become a trusted partner of foreign investors and a competitive hub for the automotive and aeronautics value chains.

A look at the performance of the integration of the Moroccan economy into the GVCs, including the participation and position indices, shows the extent to which the country is committed to the development of GVCs.

However, Morocco’s participation in some GVCs is now characterized by low added value, low upgrading, lack of innovation by SMEs (low risk-takers), few jobs for young people (market uncertainties, lack of perspectives of growth), and strong dependence on the Moroccan economy on the environmental conditions and the European market.

As a result, Morocco is trapped in some GVCs of low value-added that hardly allow it to outsource innovation and think about the 4th industrial revolution, allows series of industrial, digital, social, and environmental changes.

On the one hand, they are starting from the conviction that the performance of a country’s integration into GVCs is linked to the positive and lasting impact that must be generated by the trade in intermediate goods and the manufacturing and assembly factories in the territories where multinationals or their subsidiaries operate. On the other hand, the imperative to integrate sustainability and innovation as pathways for adaptation and transformation of national economies. Thus, the identity of a network of GVC companies of tomorrow, whatever the industry, would be that of the social and solidarity investor who respects the environment. The results obtained are, also paths to be developed through further investigations.

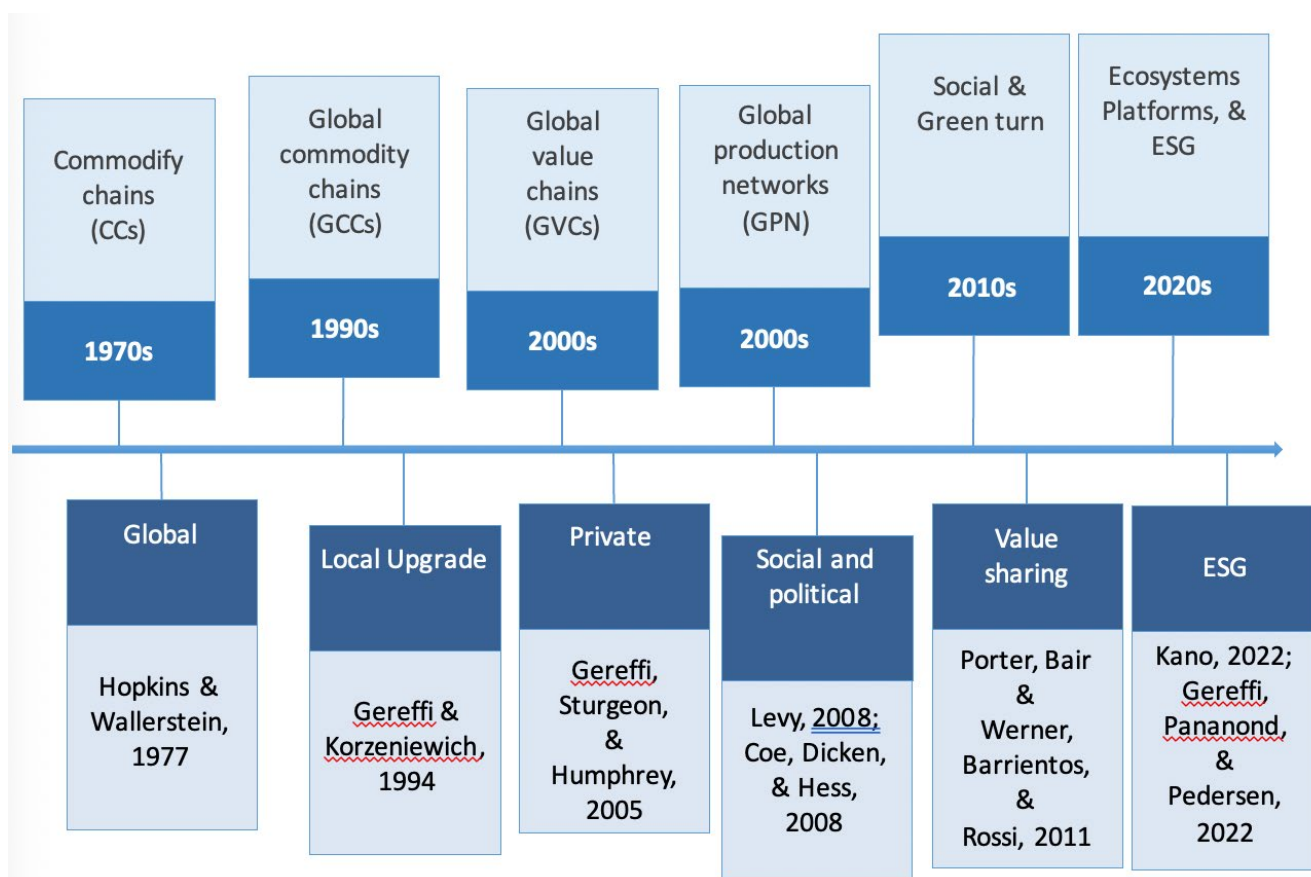
## I. GLOBAL VALUE CHAINS - EMERGENCE AND EVOLUTION: A THEORETICAL BACKGROUND

This first section aims to examine the evolution of GVCs, by describing and characterizing the key concepts and the forms associated with them, from the upgrading of local suppliers to social, environmental, and governance (ESG) criteria.

The Commodity chain (CC) concept dates to the late 70s with the theory of the World system. Among others, Gary Gereffi then introduced the Global commodity chain (GCC) by describing the chain of clothing products from the purchase of cotton to clothing; he highlighted the principle of industrial upgrading. In the 2000s, there was a transition to Global Value Chain (GVC), which builds on Porter’s work to consider how value is added along the global chain (Figure 2).

Thus, a value chain can simply be defined as the “full range of activities that firms and workers perform to bring a product from conception to end-use and beyond” (Gereffi and Fernandez-Stark, 2011). It generally includes the following activities or steps: inbound, design, research and development, production, assembly, marketing, distribution, marketing, sales, and after-sales service. These activities may be carried out within the same company or split among different companies. The fact that they are increasingly dispersed among several countries and suppliers explains why the value chain is considered “global”.

**Figure 2:**  
Emergence and evolution of GVCs



GVC is the fragmentation of global production between several countries and companies advocating to invest in an ecosystem of suppliers. At the same time, it also promotes the transfer of technologies and good practices.

Therefore, it is possible to produce in one place, consume in another, and control production and other segments of the value chain remotely and from another country. In this process, both countries and companies specialize in value-added tasks and functions without worrying about manufacturing an entire finished good. All countries participate in but in different ways depending on their comparative advantages (World Bank report, 2019).

In this context, fragmentation (Jones and Kierzkowski, 1990; Jones, 2000), offshore supply (Arndt, 1997), external orientation (Campa and Goldberg, 1997), production disintegration (Feenstra, 1998), sharing of world production (Yeats, 2001), vertical specialization (Hummels and al., 2001), outsourcing (Grossman and Helpman, 2002), global production networks (Hanson and al., 2004), GVC governance (Gereffi, 2005), CSR and GVC (Bair, 2005), social, political and environmental integration (Levy 2008; Coe, Dicken, and Hess 2008), task exchanges (Grossman and Rossi-Hansberg, 2008), internalization theory and GVC (Strange & Humphrey, Benito et al, 2019), GVC resilience (Bair, 2005 and 2015; Gereffi and Baldwin, 2020 and 2021), reflect the importance of CVGs in the relationship among countries, multinational firms, and civil society.

Later, the logic of sustainability, long-term governance, and collaborative innovation induced the systemic perspective of the transformation of GVCs. Consequently, in an uncertain and complex world, therefore, nowadays, stakeholders involved in GVCs are faced with the necessity to reason



individually no longer within their strategic preferences but instead to consider the co-construction of their environment.

A recent study by Kano et al. (2020) identifies new themes to challenge the conceptual frameworks for the analysis of GVC already mentioned and introduces an institutional and systemic perspective. It crosses the global performance of global value chains, value sharing, mapping of the GVC ecosystem, learning, the impact of leading companies' impact, protectionism, social and environmental nuisances, digitalization, trade agreements, etc. Thus, the multidimensional review offers a broader and sustained perspective of GVC to further integrate them into collective dynamics with other stakeholders.

Another good example is a report entitled "Building Resilient Supply Chain, Revitalizing American Manufacturing, and Fostering Broad Growth,"<sup>9</sup> released in June 2021 by President Joe Biden's administration, which identified five GVC as vulnerable: semiconductors, batteries, metals, active ingredients, and large-scale public services. In this context, the authors of the McKinsey Global Institute (GSI) report on "Risk, Resilience and Rebalancing in GVCs"<sup>10</sup> also suggest a dozen of measures like relocation of production, diversification of suppliers, strategic stockpiling, risk management capabilities, redundancy of transportation networks, and reduction of product complexity, etc.

Moreover, several scholars have highlighted the importance of platforms and advanced technologies in better integrating suppliers and monitoring their inventories and capacities. Nowadays, automation is used to detect changes instantly in retail trends, allowing for quick adjustments in needed projections. Similarly, artificial intelligence (AI) and automation can help improve efficiency and productivity. The increase in e-commerce delivery solutions and the importance of short, decentralized, and customer-focused supply chains (Panwar et al., 2022) is considerable.

Companies are actively seeking ideas to achieve the innovative redesign of their GVCs, leveraging existing technological innovations such as 3D printing. Reconfigurations during (and after) COVID-19 waves can help GVCs reap the benefits of value co-creation and open innovation. However, over-reliance on traditional GVCs has increased the demand for more localized, resilient, and agile value chains to manufacture products tailored to local needs and with reduced environmental footprints (Philips et al., 2022). Thus, foreign affiliates adhere more to home country perspectives on pollution and human/labor rights related to locally developed businesses (Gereffi et al., 2022).

Furthermore, other authors have pointed out that we are moving into a phase of "techno-nationalism." Post-pandemic governments are likely to play a much more significant role in orchestrating GVCs, especially for more sophisticated products, where they will actively support local knowledge development and production (Gereffi, 2021).

In this paper, it should be considered that in the context of internationalization, these good , and key countries of the GVCs (Asia, Morocco, Egypt, Turkey, Mexico, Eastern Central Europe, etc.) are organized in networks and based on new forms of relationships and innovations. CSR best practices, mergers, and strategic alliances between companies to form more integrated groups, new localized and innovative production sites and the integration of local communities are at the heart of the transformation of GVCs.

9. [https://www.whitehouse.gov/wp-content/uploads/2021/06/100-day-supply-chain-review-report.pdf?utm\\_source=sfmc%E2%80%8B&utm\\_medium=email%E2%80%8B&utm\\_campaign=20210610\\_Global\\_Manufacturing\\_Economic\\_Update\\_June\\_Members](https://www.whitehouse.gov/wp-content/uploads/2021/06/100-day-supply-chain-review-report.pdf?utm_source=sfmc%E2%80%8B&utm_medium=email%E2%80%8B&utm_campaign=20210610_Global_Manufacturing_Economic_Update_June_Members)

10. <https://www.mckinsey.com/business-functions/operations/our-insights/risk-resilience-and-rebalancing-in-global-value-chains>

## II. A NEW CONTEXT IN THE RELATIONSHIP BETWEEN GVC COMPANIES, STATE AND CIVIL SOCIETY: TOWARDS A TRIPARTITE GOVERNANCE FOR MATCHING CSR AND SOCIAL OBJECTIVES?

In the context of globalization, multinational firms, which coordinate the activities and tasks of GVCs, are mainly targeted for their social, governance, and environmental impact. Economists and civil society note that these business networks create significant negative externalities in both social and environmental (UNCTAD<sup>11</sup>, 2013; ILO, 2016; OECD, 2018).

Firms have therefore started a social turn and a green turn. However, these actions are now often considered social washing and greenwashing, leading to an intense criticism of the communication operations of multinational firms. There are massive contradictions between the CSR practices and policies of firms and their behaviors and strategies that led to the rise of mistrust and injustice feelings among various stakeholders of GVC: negative perception of GVC, high demand for jobs and integration of local SMEs, the difficulty of dialogue and communication with stakeholders, the low added value captured by developing countries, non-compliance with standards of rehousing of local populations, and environmental nuisances, etc. are among the biggest challenges.

As a result, CSR has become the main field of the struggle of actors to improve the private governance of GVC (Bair, 2015). For governance, several specialists suggested that actors, including social actors, find ways to take advantage of CSR and force change to change the business models of value chains towards models that allow the sustainability of activities and the active participation of all the driving forces of value chains. However, Gereffi and Meyer's analyses demonstrate how leading companies have managed to shape the field where this struggle is taking place, mobilizing CSR<sup>12</sup> to control risk and maintain control along the value chain CSR strives to absorb and disseminate social protest and political conflicts in this perspective.

Despite these efforts, the social programs developed by firms in the context of CSR have limited effects. The 2008 global financial crisis represented "a failure of responsibility on several levels: at the individual level, at the corporate level, at the level of the financial sector, and the level of the capitalist system as a whole" (Visser, 2011).

Recently, the coronavirus shock has revealed the vulnerability of excessively China-based supply chains (Baldwin, 2020; Gereffi, 2020). Thus, at the pandemic, many industrial and emerging countries found themselves without personal protective equipment because of the shutdown of supply chains in Asia. Similarly, in the automotive sector, the semiconductor crisis has temporarily interrupted the activity of several assembly and manufacturing sites.

While many multinational firms have chosen to apply strategic CSR, i.e., a responsibility aligned with core business (the case of Coca Cola and water management), systemic CSR proposes to understand better the interconnections between society, communities, economies, and ecosystems (De Marchi and Alford, 2021). It aims to transform the firm's business model to build a broader human and ecological system.

11. [https://unctad.org/system/files/official-document/wir2013\\_en.pdf](https://unctad.org/system/files/official-document/wir2013_en.pdf)

12. In addition, the concept of CSR has evolved a lot in recent years: Friedman's theory (the *raison d'être* of a company is to increase shareholder profits), Freeman's stakeholders (the company must care about the interest of all stakeholders), Porter and Kramer's analysis (the company has the ambition to create shared value, reinvent the new capitalism and trigger a new wave of innovation and growth).

The concept of GVC sustainability is not limited to improving the social conditions of workers or broadening the participation of stakeholders in the value-sharing process. However, it aims to use resources reasonably, guarantee partners goods and services with good value for money, and ultimately maximize the well-being of all GVC participants. Therefore, the GVCs of tomorrow are value chains that provide answers to local, social, and environmental problems and transform threats into opportunities. This is the whole philosophy of the notion of value sharing, developed by Porter in 2011.

In conclusion, about sustainability, the concept of GVC becomes even more useful, as it involves internal and external stakeholders in the process of creating added value and transforming current business models towards sustainable and inclusive models.

### III. CONTRIBUTIONS AND LIMITATIONS OF THE LITERATURE ON GVCs: TENSIONS BETWEEN PROFITABLE INTEGRATION AND COSTLY DOMINATION

Starting from a presentation of the complex relationship between multinational firms and national economy that highlights the crucial role of the multinational firms in the governance of GVC through the participation of countries and national companies or JV in the manufacture and trade of intermediate parts and components, we review the value-added trade as well as the different models of governance and integration of GVC. Thus, the GVC concepts are associated with the promotion of industrial upgrading and governance of multinational firms advocating the transfer of technology and know-how to emerging countries and investment in Research and Development in industrial countries.

The notion of the GVC corporate network makes it possible to go beyond sectors of activity and national economies to establish new forms of participation and relationship, social and environmental criticism of GVC leading MNEs to support more entrenched collective dynamics (mergers or communities) and define a more participatory and sustained political framework around shared interests and values. The multinational firm shares in value, but above all in its *raison d'être*, commercial conception, and technological standards.

The GVC offers an appropriate policy framework to build a sustainable global system to guarantee its partner's products and services at the best value for money to ensure the maximum well-being of stakeholders with the fairest use of resources. The GVC is indeed a global perspective to activate all the contributions and initiatives of national economies by promoting investment, learning, and synergies. Thus, countries and companies seek a role to play in the global economy instead of destructive competition. This context also encourages MNEs to outsource innovation to SME networks to limit country and investment risks but also to upscale and improve business skills.

In addition, the economic performance of the Global Value Chain will depend on its various activities and functions. These contribute to this performance, which shifts the issue of the competitiveness of companies to the efficiency of value chains. These develop a global capacity to fragment production and coordinate it in a country's offer. As a result, the performance of GVC and the dynamics of development depend on the ability of foreign and local actors (suppliers and subcontractors) to offer innovative services to multinational firms and to set up productions that differentiate them from competitors, either through the specificity of the intermediate good

itself, or through the specificity of quality and/or through innovative design processes, production, marketing, and development.

In global economics, the popularity of the GVC concept is marked by the fragmentation of global production among several countries and companies. Thus, more and more countries are getting involved in GVC integration policies.

In these policies, the trend towards developing more integrated global groups and deep local integration is confirmed through a dynamic of mergers of companies and positioning of SMEs as service providers and sources of innovation proposals to GVC. This trend has fostered the global networking of multinationals, suppliers, and SMEs. In this perspective, clusters or technological innovation centers have become privileged tools of MNEs to promote adaptation, R&D, and innovation. The theoretical debate allows us to begin the analysis of the integration of the Moroccan economy into the Global Value Chains, where we are strongly interested in the competitiveness of GVC in Morocco, their adaptation, and the implementation of innovation to create integrative clusters.

In this complex and multidimensional integration process, there is no ready-made recipe for success. Still, good practices observed and reflections that should generate debate, it should not be imagined that Morocco's participation in Global Value Chains will be what has been achieved in other Asian countries. Cultures are not the same, nor are ecosystems, resources, technologies, price structures, price structures, markets, etc. On the other hand, Morocco must have its own place by its environment and its African ambition.

In a country like Morocco, favoring employment and projects with a human dimension appears to be the best way, which does not exclude the use of new technologies and participation in sophisticated value chains. The gap between international and local actors should also be reduced. Local actors are poorly mobilized and have little capacity and impact along the value chain. GVC subcontractors have little ambition and fail to offer services or innovations to different industries. Sophisticated value chains are therefore not integrated, and markets are very short-term.

## IV. OUR METHODOLOGICAL APPROACH

Doing this work is based on a triple approach: I) a study of the environment that has favored the emergence of Global Value Chains in Morocco, ii) an analysis of the opportunities and threats that weigh on Morocco's model of participation in GVCs, and iii) prospects for the recovery of GVC through innovation and entrepreneurship.

A triangular approach, allowing us to make a reading of several distinct but congruent facets, using macro-economic sources (OECD, WTO, Ministries, Trade, ExChange Office, Central bank...), industry analysis (ecosystems, sectoral federations...), and interviews with actors (MNEs, SMEs, and public actors...).

Instead of proceeding according to a purely sectoral value chain approach, the analysis of Morocco's participation in GVCs is systemic. It takes place at several levels that must be distinguished: at the national level, at the level of the multinational firm, at the level of the GVC, and the level of the SMEs (survey). Thus, in the first part, we will briefly describe how GVCs and their specificities have contributed to trade, economic growth, and development.

In a second step, we analyze some significant trends in Global Value Chains such as the fragmentation of global production, interdependencies, and the governance of multinational firms. The second part concludes with a subsection exploring the OECD's Trade-in Value Added (TiVA) database and

discusses the integration policies of national economies. A third part examines the strengths of the Moroccan integration model by characterizing its participation in the GVCs and by evoking the signs of a transition of the automotive and phosphate sectors to increasingly specialized and complex activities and tasks. In this part, we have chosen to study four GVC, not only because of their importance but also because of their very different respective positions:

1. Morocco is the world's leading producer and exporter of phosphates, and one of the largest fertilizer producers. Thanks to the OCP ecosystem, the country is very competitive along this value chain and is now positioning itself on Research and Development.
2. The automobile industry, the country's leading export sector, must meet radically new industrial and environmental challenges.
3. The Kingdom has exceptional agricultural and natural potential that has not yet been able to develop the renewable energy sector or significantly improve its food and energy independence. It is a matter of survival.
4. Finally, the performance of the textile and clothing sector is limited, the country has lost a lot in terms of competitiveness and now needs to train a more creative workforce and improve its upstream integration.

The analytical framework for each GVC places the four industries along the value chain, characterizing them in terms of positioning, degree of specialization and level of autonomy. In this context, an analysis is carried out for each GVC assessing strengths, weaknesses, opportunities, and risks and threats.

## V. THE CHALLENGES OF MOROCCO'S PARTICIPATION IN THE FOUR GVCs

According to the IMF<sup>13</sup> report published in 2020, the Kingdom of Morocco is the 5th largest economy in Africa. On closer inspection, Morocco's GDP has held steady at an average annual growth rate of 4.5% over two decades to reach US\$122 billion in 2019. Despite Morocco being an agricultural power and a major player in the international phosphate market, the automotive and energy sectors have become the new engines of the Kingdom's economic growth.

The development of the Moroccan integration model in the global economy is the result of a Royal vision, a policy based on a modern infrastructure (the High-speed Train (HST) and the port of Tangier Med as examples) and competitive industrial ecosystems led by the Government, through "Government-multinational firms" program contracts and sectoral plans such as the Green Morocco Plan<sup>14</sup> and the Industrial Acceleration Plan<sup>15</sup>.

In Morocco, the coronavirus health crisis marks the beginning of a new period where "the issues of economic resilience, trade dependence and the regain of national sovereignty are put forward" (El Bekri, 2021).

OECD data on trade in value-added show that Morocco is making progress in its process of integration into Global Value Chains. The value of trade-in value-added increased by 7.8% between

13. <https://www.imf.org/en/News/Articles/2020/12/23/pr20388-morocco-imf-executive-board-concludes-2020-article-iv-consultation>

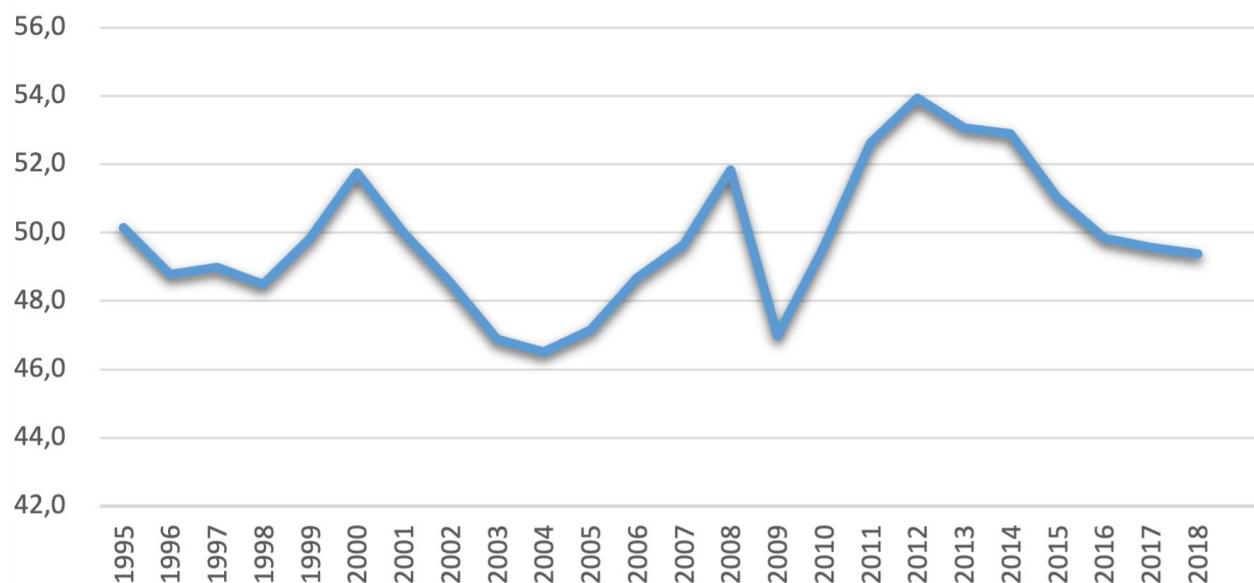
14. <https://www.ada.gov.ma/en/main-achievements-green-morocco-plan>

15. <https://www.mcinet.gov.ma/en/content/industrial-acceleration-plan-2014-2020-first-ecosystems-aeronautics>

1995 and 2018 to reach US\$51 billion in 2008. The growth of GVC in Morocco is largely driven by the acceleration of the services sector and global trades (automotive and aeronautics). Indeed, the participation index of the Moroccan economy recorded an average annual growth rate of 0.5% between 1995 and 2018 to reach an overall integration peak of 53,9% in 2012. According to TiVA data, Morocco's overall level of integration is higher than Spain and Turkey while Vietnam, Malaysia, and South Korea are better positioned on GVCs (Figures 3 and 4).

**Figure 3:**

### Evolution of Morocco's Participation in GVCs – 1995-2018

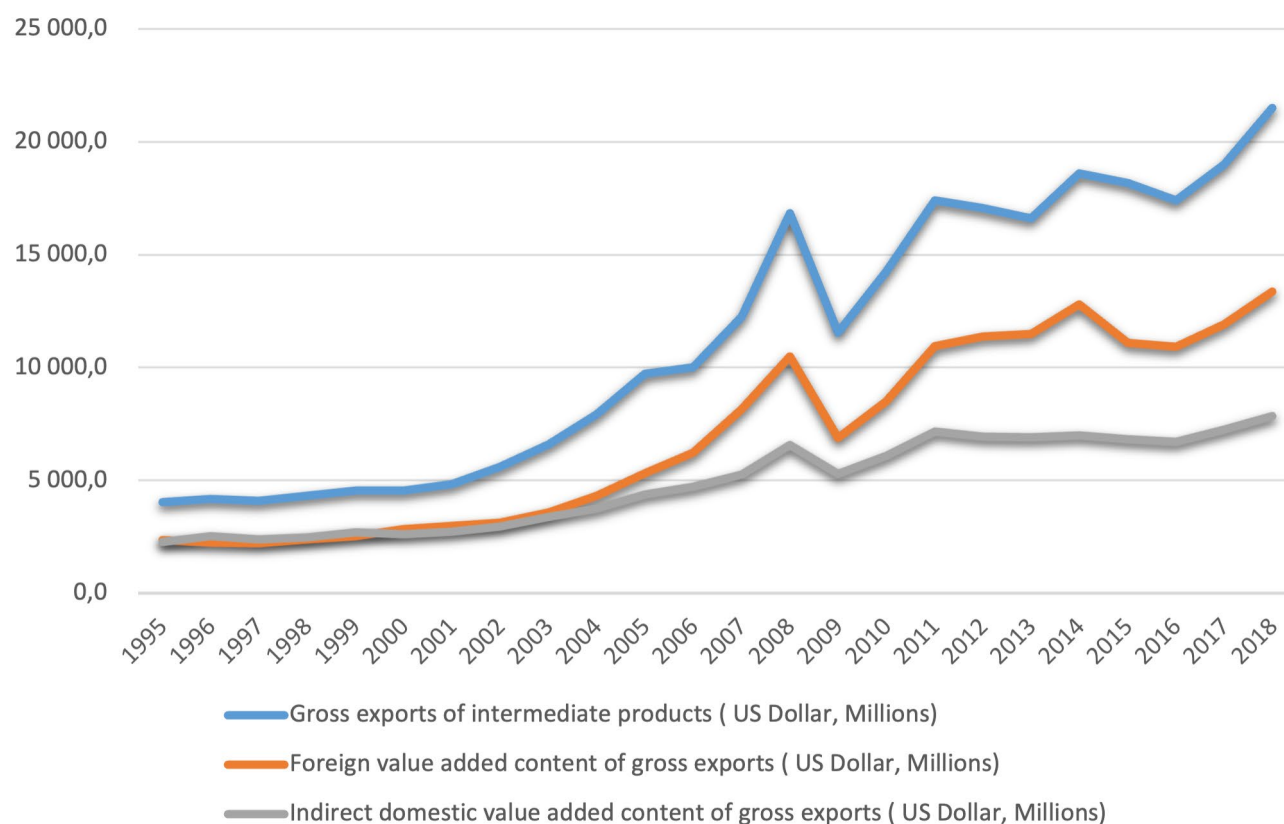


Source: OECD

According to a recent OECD report in 2021, 27.5% of the value-added produced in Morocco depended on foreign final demand. For example, some GVCs such as automotive and textiles export more than 80% of the added value they produce.

Figure 4:

## Morocco's Foreign Value-added and Domestic Value-added – 1995-2018



Source: OECD

The foreign value of Moroccan exports has gradually increased since the 2000s to reach US\$13.4 billion in 2018. Not to mention that 44% of imported intermediate products are used in exports – with much higher shares (60-80%) for textiles and motor vehicle parts (OECD databases, 2021).

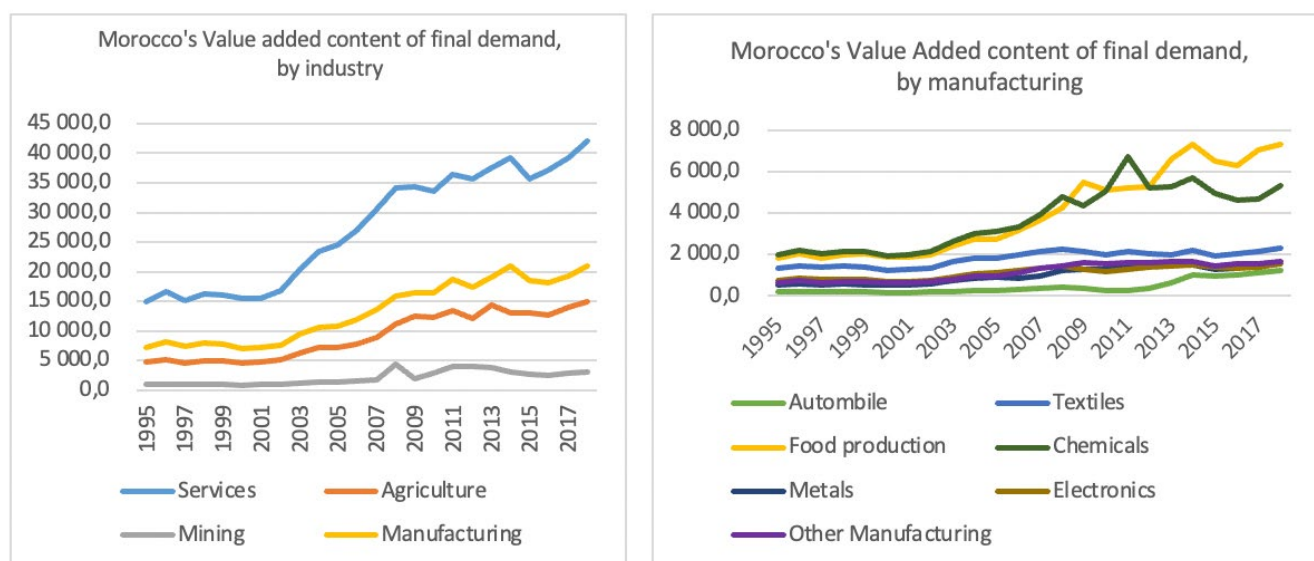
Although France and Spain are the Kingdom's main trading partners, Moroccan exports to the USA create more added value, Germany and China appear to be more interesting sources of imports in terms of added value.

Between 1995 and 2018, the sectors that brought more value added were, in order of importance, tourism, transport and telecoms (Figures 5) and industries (textiles, agri-food, and automotive in particular).

Despite the sustained growth of the services sector, given the many projects that the country sees emerging every day, the share of services in the value added of exported manufactured goods remains below the OECD average (OECD, 2018) (Figures 5a & b). This opens new economic opportunities and significant competitiveness gains between local suppliers and exporters.

Figures 5a &amp; b:

## Morocco's Value-added Content of Final Demand, by industry



Source: OECD

It should be noted that these performance levels are based on the statistics of the year 2018 and the positions of some economies such as Morocco, have changed considerably since the development of the automotive, aeronautics, and renewable energy sectors.

OECD tables on the contribution of industrial sectors show that Morocco has positioned downstream of the GVC thanks to its manufacturing, assembly, and various transport and distribution services provided to value chains, while most developed economies are more integrated upstream.

To develop high value-added activities upstream of value chains, i.e., design and R&D activities, Morocco should further promote innovation and technology. This will also allow it to be less vulnerable to supply shocks from countries positioned further upstream of the GVC.

However, this upstreaming task is not easy. The analysis of imports and needs of the Moroccan industry still shows a significant gap between foreign value-added and domestic contribution. Thus, the Kingdom continues to import many industrial inputs and end-user products. Similarly, the needs in terms of R&D, conception, design and digital are confirmed with an increasing rate of foreign value-added incorporated into Moroccan exports (25.7% in 2015 against 22% in 2005). At the same time, the stages of different value chains carried out locally represent on average 17.5% of the value of the final product, except for certain distinctive sectors such as automobile, which has exceeded 60% of local integration.

Globally, in the context of the Covid-19 health crisis and after, supply chain disruptions and non-tariff barriers are accumulating, and economic independence has once again become a major concern for many countries. In Morocco, according to several reports by both the World Bank and IMF, the country has been able to adapt to different shocks with remarkable responsiveness. Even in the past, the Moroccan economy has been resilient after the 2008 financial crisis and the succession of years of droughts<sup>16</sup>. Various

16. Moroccan reservoirs were on average just 33.2% full by end of February versus 48.5% a year ago. <https://www.reuters.com/business/environment/catastrophic-moroccan-drought-boost-import-subsidy-costs-2022-02-18/>



competitive advantages are favorable in times of disruption, among them: a skilled and resourceful young population representing a very competitive investment, its social and political stability, and its efficient logistics network reduces the risk of chain disruption and transport costs. As noted by several specialists, the Kingdom's location and industrial flexibility have given it the opportunity to become one of the most suitable countries for the global prospects "China PlusOne"<sup>17</sup> and "Stop and Go".<sup>18</sup>

In this context, Morocco has also distinguished itself by becoming the backbone of a good part of the GVC linking Africa and Europe. Examples include the merger of Peugeot, Citroën, Fiat and Alfa Romeo to form a more integrated group named Stellantis, the opening of the Tesla plant<sup>19</sup> to deal with the semiconductor crisis, the launch of new localized and innovative production sites, and the rehabilitation of the training offer by creating the "Cap Excellence" to train a new generation of human resources for the automotive and textile sectors. Two other decisions contribute to Morocco's improvement: the potential of the North American market through the free trade agreement signed with the United States in June 2004<sup>20</sup>, and the target set by the country to recover US\$5 billion in imports under the very interesting initiative "Project Bank"<sup>21</sup> (MCVN, 2021).

## 5.1. Building Sustainable and Resilient Agri-Food Systems

For Agri-Food, the GVC is essentially market-driven. Morocco maintains a production capacity and cost advantage, but it must be careful about climate change and better manage its water resources in distress situations. If the agri-food value chain is backed by strong local agriculture, Morocco has succeeded in creating national champions such as Cosumar, Lesieur, Copag Jaouda, etc.

The agri-food sector occupies a vital place in the Moroccan economy. Indeed, it contributes up to 4% of GDP and employs more than 161,000 people directly through 2,100 national and foreign companies. It is thus the third largest export sector in the Kingdom after the automotive industry and phosphates, with an export value-added of US\$3.9 billion.

This sector is very diversified, the Kingdom is a major producer of fish, tomatoes, citrus fruits, olives, and argan which is a considerable asset for the development of agri-business. Thus, the country is among the nations with a strong agri-food tradition and can adapt to new industrial, social, and environmental challenges and integrate the upstream and downstream agri-food value chains.

The sector is based on six strategic sectors: the fruit and vegetable valorization industry, dairy industry, biscuit and chocolate industry, pasta and couscous industry, olive oil industry, and meat industry. These sectors are at the crossroads of three integrated sectoral plans: The Green Morocco plan (fruits and vegetables), the Halieutic plan (fish and seafood), and the Industrial Acceleration plan. This requires more effort in terms of coordination and synergies. During the periods of confinement, the Moroccan agri-food sector has been resilient and supply chains have functioned properly thanks to national agricultural production and the exemplary solidarity of industrialists.

17. [https://en.wikipedia.org/wiki/China\\_Plus\\_One](https://en.wikipedia.org/wiki/China_Plus_One)

18. Cyclical economic policy by alternating braking and recovery measures.

19. In the city of Bouskoura, 20 kilometers outside of Casablanca. <https://www.morocoworldnews.com/2021/06/343148/morocco-to-begin-manufacturing-electronics-for-tesla-automobiles>

20. <https://ustr.gov/trade-agreements/free-trade-agreements/morocco-fta>

21. <https://banquedeprojets.mcinet.gov.ma/>

The analysis of the structure of the Moroccan agriculture and agri-food GVC highlighted that the GVC encompasses several areas of economic activity namely agricultural inputs, services, production, transport, distribution, valorization, and marketing. It is an export opportunity for agricultural products incorporating added value (cleaned, packaged, treated products, etc.).

Experienced Moroccan producers have managed to develop long-term contracts and build trust-relationships with exporters and distributors (supermarkets, for example). There are indeed strong links between Moroccan and European producers. For some sectors such as fish and tomatoes, buyers have high bargaining power because of the volume of their purchases. Morocco has big exporting companies but so few of them.

The EU's proximity market is buoyant but protected by very strict health standards and essential labels. Indeed, the consideration of health and environmental conditionalities is essential for Morocco's participation in this GVC. The agri-food industry is particularly valuable. Its sustainable growth can certainly be encouraged by well-targeted incentives in terms of communication and research and development.

However, the sector is heavily impacted by trade conflicts and non-tariff barriers as well as major environmental constraints mainly the carbon tax on the European market planned for 2023, the import of competing products from Latin America at very low prices, market crises, and soaring commodity prices, and risks of non-economic competitiveness. Today, the program contracts have succeeded in developing an offer in two directions: 1) acceleration of innovation and the upgrading of sectors, and 2) support for investment towards growth, export, and financing.

**Table 1:**

### Agri-food Potential and Challenges for Morocco

OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> <li>• Program contracts: CP-IAA</li> <li>• Agricultural Development Fund</li> <li>• Industrial Development Fund</li> <li>• Project bank for Moroccan and foreign investors</li> <li>• Public and private orders</li> <li>• Emergence of the middle class in Asia and Africa</li> <li>• Proximity to the European market (65% of agri-food exports are destined for the EU)</li> <li>• Demands from internal market</li> <li>• Rapidly growing retail sector</li> </ul>	<ul style="list-style-type: none"> <li>• Climate-dependent sector</li> <li>• Health risks</li> </ul>

## CHALLENGES AND EXPECTATIONS OF PROFESSIONALS

Public and private actors are unanimous on the following challenges and expectations:

- Strengthening the Kingdom's food independence
- Further exploiting the potential of the local market
- Creating sustainable value upstream of GVC through a strong R&D program
- Meeting new customer expectations (downstream integration)
- Improving Moroccan added value
- Guarantee a better value for money of the products
- Supporting the sector in sustainable development, particularly low-carbon and renewable energies
- Improving logistics and cold chains, especially in the southern regions
- Continue to support investors in terms of growth and financing
- Have innovative and localized production units (Example of the company Egbel).

As options for developing Morocco's participation in this strategic value chain, it is essential to think about an "agricultural system". Morocco should move, at the same time, a set of blocks of this system. Priority is given to research and development. The second priority is about water and the sanitary quality of products. Not to mention the imperative to develop agriculture that is resilient to climate changes and market needs.

### 5.2. Adapting Automotive Sector to CO2 Emission Standards

The automotive GVC is very well structured and is orchestrated by foreign MNEs. The Stellantis group has formed a powerful and more integrated alliance. However, the local SMEs often acts only in tier 3 and 4 levels as subcontractors.

The automotive GVC based in Morocco continues to grow at a faster pace than all other industrial production sectors and has exceeded the value added of phosphates by 1.5. Thus, with a production capacity of more than 700,000 vehicles per year and an export value-added of 8 billion US dollars, the Moroccan automotive industry has become the kingdom's leading export sector. Morocco is Africa's largest car producer and second-largest exporter to the European Union. Thanks to modern infrastructures (HST and the Port of Tangier Med), the Kingdom has successfully positioned itself to become the hub of the global automotive manufacturing value chain linking Africa and Europe.

This automotive GVC, now both led by Renault Group and PSA Group (now Stellantis), rely on more than 200 international and domestic suppliers operating their own local manufacturing plants, including large companies headquartered in Germany, France, Italy, Spain, Belgium, Japan, and the United States. For example, the American company Lear, ranked 179 on the Fortune 500 list, operates eleven production sites in Morocco for the manufacturing of car seats and electrical systems. For their part, Chinese manufacturers are taking advantage of the opportunity of the Peugeot plant in Kenitra (North) to integrate into this value chain. For example, the Chinese group CITIC Dicastal has built its plant in Morocco with an investment of 400 million dollars and with a production capacity of 6 million parts per year to supply Stellantis.

Morocco Automotive GCV has been configured around nine competitive ecosystems, specifically: Stellantis, Renault, wiring, engines, and transmission, vehicle interior and seats, trucks and bodies,

automotive batteries, metal, and stamping. This has allowed the country to cover the entire automotive value chain, namely wiring, assembly, metal, stamping, interior and vehicle seat parts, battery, powertrain, engine, and transmission.

The Moroccan High-Speed Railway Line Al-Boraq is the backbone of this automotive GVC. With the inauguration in 2018 of its first segment connecting Tangier to Casablanca, the Al-Boraq line is connected to the new ultra-modern Tangier Med port on the Mediterranean coast 40 km east of Tangier and 14 km from Spain by sea. At the end of the second phase of development of this port in June 2019, Tangier Med became the largest port in the Mediterranean with a total container capacity of nine million units, surpassing the Spanish ports of Algeciras and Valencia.

It should be recalled that Renault Group has built a second Moroccan manufacturing plant in Tangier to benefit from the extension of the Tangier Med port and the rail link. However, in 2019, Europe's third-largest carmaker sent six trains of Renault vehicles daily from its Tangier plant to the Tangier Med port for shipment to end markets. Similarly, the French group Stellantis, Europe's second-largest car manufacturer, has opened a manufacturing plant in Kenitra, north of Rabat, due to the competitive advantages already mentioned above.

Finally, the automotive industry in Morocco has particularly evolved since 2011 with the establishment of the Renault (Tangier) and Stellantis group (Kenitra) plants, the construction of the "greenfield" engine assembly plant (Kenitra), the creation of an R&D center in Casablanca and the signing of a memorandum of understanding with Stellantis for the manufacture of electric vehicles (EV). As a result, production increased from 90,000 to 410,000 vehicles between 2012 and 2019 and is expected to reach 700,000 cars in 2023.

Some highlights of the automotive GVC are worth mentioning:

- ***Merger of PSA with Fiat, and birth of Stellantis***

PSA Group based in Morocco is now part of a more integrated group, encompassing in addition to Peugeot, Citroën, Fiat, Alfa Romeo, and Opel. This merger illustrates the dynamics of the automotive sector with strategic mergers between automotive giants to achieve economies of scale and further reduce costs. As an example, in August 2021, the German manufacturer Opel revealed its new rocks-e electric car, which is an improved version of the Citroën Ami. This car was designed and developed in the Morocco Technical Center (MTC), an R&D and engineering laboratory of the Stellantis Group.

- ***Semiconductor supply crisis***

Car manufacturers are now suffering from the crisis of semiconductors used in vehicle manufacturing. Some supply lines for General Motors and Ford Motor were temporarily shut down in 2020. This is one of the weaknesses of the GVC linked to the dependence between car manufacturers and tier #1 and #2 equipment manufacturers. This global supply shortage has highlighted the automotive industry's dangerous dependence on Asian semiconductor manufacturers, prompting the US and European carmakers to strengthen their efforts to find alternative sources of supply and move closer to European markets.

- ***STMicroelectronics-Tesla Agreement***

This agreement seems to be only the vanguard of a wave of electric vehicle (EV) production in Morocco, which has already paved the way for EV manufacturing in Morocco. After Tesla, Groupe Renault signed a strategic cooperation agreement with STMicroelectronics to supply advanced semiconductors for electric and hybrid vehicles to be produced by the company.

With an automotive chip production line dedicated to electric vehicles (EV), Morocco is positioning itself to become an EV production center while becoming a strategic part of the resilience of the Western semiconductor supply chain. In 2021, Renault launched its Dacia Spring EV in Europe, marketing it as the cheapest electric car. While vehicle Renault makes the car in China, chip production in Morocco suggests that the Dacia Spring or successor EV models could be manufactured at Renault's plants in Morocco. Stellantis has started manufacturing the new Peugeot e-208 EV at its plant in Trnava (Slovakia). The Moroccan Kenitra plant already manufactures the ICE version of the Peugeot 208 hatchback 5-door. Since the e-208 uses the same chassis as the gasoline-based Peugeot 208, the e-208 can also be easily assembled at the Kenitra plant.

Table 2:

### Automotive Potential and Challenges for Morocco

OPPORTUNITIES	RISKS THREATS
<ul style="list-style-type: none"> <li>• Industrial Acceleration Plan</li> <li>• Industrial Investment Fund</li> <li>• Period of unprecedented innovation in the automotive sector</li> <li>• Large investments in R&amp;D</li> <li>• Modern basic infrastructure 14 km from Europe (HST and Tangier M)</li> </ul>	<ul style="list-style-type: none"> <li>• Semiconductor crises</li> <li>• Constraining environmental standards requiring heavy investments (CO<sub>2</sub> standard)</li> <li>• Trade wars</li> <li>• Dependence on imported industrial inputs</li> <li>• Rising prices for auto parts and equipment affect margins</li> <li>• Low upstream integration</li> </ul>
CHALLENGES FOR MOROCCO	
<ul style="list-style-type: none"> <li>• Improving local added value (US\$3 billion in 2019)</li> <li>• Accelerating the decarbonization process to face the 4th industrial revolution</li> <li>• Adapting downstream (creative human resources and investment in R&amp;D)</li> <li>• Not forgetting the promises of E-mobility</li> </ul>	

## 5.3. Leadership in Phosphate: Integrating the Value Chain from Rock to Plate

The Morocco-born OCP group controls the GVC of phosphates. Morocco is positioning itself on R&D and fertilizers to expand its influence.

As many international mining groups, OCP faces two main challenges:

- A stronger regulatory environment that forces producers to review their business models.
- Significant legal risks related to the effects of certain chemicals on human health.

The Kingdom of Morocco is a major player in the international phosphate market. The country holds more than 70% of the world's phosphate rock reserves, which allows it to ensure production over several centuries. OCP, the firm that heads the GVC of phosphates and derivatives to fertilizers, has set up an extensive investment program (US\$ 20 billion) of which one of its pillars is research and development along the value chain. Thus, OCP is present along this chain through the extraction, valorization and marketing of phosphates and its derivatives:

- Raw materials: The OCP group sells phosphate rock and phosphoric acid to the agricultural sector as well than to the industrial sector.
- Fertilizers: OCP manufactures state-of-the-art standard fertilizers, enriched fertilizers, and soluble fertilizers.
- Feed supplements for animals: OCP offers a wide range of phosphate feed supplements for animals, suitable for poultry farming, sheep, cattle, pigs, and aquaculture.

As a result, Morocco is the world's leading producer and exporter of phosphates and phosphoric acid. OCP is also one of the world's leading fertilizer producers. OCP has created more than 40 subsidiaries and are structured into five groups: Operating subsidiaries, international trade and support subsidiaries, engineering and consulting subsidiaries, ecosystem development subsidiaries and services subsidiaries. The group has 160 customers across five continents. More recently, OCP has strengthened its presence in East Africa (Ethiopia and Nigeria) and Latin America (Brazil).

From 2008, under the leadership of CEO Mr. Terrab, a new vision of OCP is asserted on the ground: "Ensure over time the best development of the Kingdom's phosphate resources while respecting the responsibilities of the Office". This is an integrated but moving strategy to drive OCP's transformation itself. This strategy has defined five strategic areas of activity: extraction and mining, processing and valorization of phosphate derivatives, marketing in various forms, research and development, and finally sustainable development.

Strongly involved in the creation of Mohamed VI Polytechnic University, this is the expression of OCP's new vision in favor of Research and Development as a major growth engine for the GVC of phosphates and derivatives.

In addition to green development and the integration of a network of small African farmers, the OCP Group is committed to developing sustainable ecosystems around the group's industrial activities. The objective is to ensure that the investments of the phosphate GVC benefit as much as possible the fabric of Moroccan and African companies.

**Table 3:**

### Challenges of the GVC of Phosphates and Derivatives

STRENGTHS	THREATS
<ul style="list-style-type: none"> <li>• A significant investment in research and development</li> <li>• Industrial flexibility through the development of new platforms in Africa and Latin America</li> <li>• Business agility and responsiveness to new customer expectations</li> <li>• OCP is a resilient company to changes in the business cycle</li> <li>• The phosphate industry and its derivatives benefit from sustainable and innovative products</li> <li>• Aquaculture (60 million tons) can open a huge market for OCP in the compound feed niche.</li> </ul>	<ul style="list-style-type: none"> <li>• A stricter regulatory environment requiring producers to review their business models</li> <li>• Significant legal risks arising from the effects of certain chemicals on human health</li> </ul>

## MAIN CHALLENGES AND OPPORTUNITIES

- Strengthening the systemic approach and adaptive capacities
- Strengthening competitiveness
- Improving local integration
- Succeeding in sustainability transformation

Thanks to this diagnosis, we can identify an integration of the Moroccan economy into the phosphate GVC with a structuring effect, like an “Integrator Cluster”. It relies on the national independent GVC in phosphate run by an international leading company, OCP. Recently, Koch Ag & Energy Solutions (Koch) and OCP Group have signed an agreement under which a subsidiary of Koch will acquire a 50% stake in Jorf Fertilizers Company III (JFC III). Once closed, the transaction will create a Joint Venture owned equally by OCP and Koch<sup>22</sup>.

In this GVC cluster, we propose an articulation around two guiding principles:

- **Adaptation:** Guarantee its partner’s products and services at the best value for money to ensure maximum well-being with the fairest use of resources.
- **Innovation:** Seek to reflect on the challenges of tomorrow: industrial, social, and environmental objectives.

### 5.4. Redefining Textile Industry around the “Made in Morocco.”

The GVC of textile is dominated by Inditex, the large Fast Fashion Spanish group. Morocco must train a creative workforce and manufacture locally the fabric requiring a lot of energy and R&D but specialized in labor-intensive activities.

Therefore, it is indulgent for the case of Morocco to capitalize on national success stories such as Diamantine and Marwa by proposing an authentic and traditional offer.

The textile and clothing sector plays an important socio-economic role in the Moroccan economy. Indeed, it represents 1,600 companies and employs 189,000 people directly. This sector has an export turnover of around 36.5 billion dirhams (US\$ 3.6 billion) and generates an added value of 16 billion dirhams (US\$ 1.6 billion).

However, Morocco imports textile products and has suffered dramatically from Chinese competition. In 20 years, Moroccan textiles have lost competitiveness and jobs. However, a few operators remain active, showing great courage and resilience in this hyper-competitive environment.

Today, integration has improved considerably with the support of the industrial acceleration plan and the arrival of a new generation of companies oriented towards innovation and rigor. In record time, Morocco returns to this GVC by attracting new Turkish and Chinese investors, for example. At the same time, the country is strengthening upstream and downstream integration by manufacturing fabrics and finished products.

22. <https://www.ocpgroup.ma/press-release-article/koch-ag-energy-solutions-acquire-50-stake-jfc-iii-ocp>

In this sense, six textile and clothing ecosystems are developing in Morocco; these are “Denim”, “Fast Fashion”, “Industrial Distributors of National Brands”, “Mesh”, “Home Textile” and “Textile for Technical Use”. During the health and economic crisis, Morocco has introduced the “Medical Textile” sector by manufacturing its own face masks, demonstrating adaptive behavior and resilience during the Covid-19 crisis.

In Morocco, the established GVC remains largely dominated by international brands and distributors who have managed to develop a stable network of Moroccan and foreign suppliers. For example, the trading company Li & Fung sources from 15,000 suppliers in more than 40 countries, including Morocco. The relationship is based on subcontracting and sometimes involves Very Small Enterprises (VSE), women’s work at home, or informal workshops.

Table 4:

## Textile Potential and Challenges for Morocco

OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> <li>Proximity to the European market</li> <li>Know-how in fast fashion</li> <li>Rise of the middle class in Asia</li> <li>Free trade agreement with Turkey (Morocco has revised this agreement by integrating more Moroccan suppliers)</li> </ul>	<ul style="list-style-type: none"> <li>High elasticity of demand</li> <li>Variable prices</li> </ul>
MAIN CHALLENGES	
<ul style="list-style-type: none"> <li>Investing in creative human capital and R&amp;D</li> <li>Improve upstream integration</li> <li>Supporting the sector towards design and creativity</li> <li>The priority, at least in the short term, is to be given to the domestic market because there is a strong demand, and products made in Morocco can be qualitative and competitive.</li> <li>E-commerce and technological development</li> <li>Sustainability is a necessity to address industrial and environmental challenges</li> </ul>	

## VI. BEST PRACTICES OBSERVED AND NEW PARADIGMS AROUND NEW VALUES: WHAT CAN WE LEARN FROM MOROCCO?

Innovation and cooperation are the main requirements to develop and maintain a competitive advantage for local producers. Participation in GVC can help countries and companies in their process of improving product quality and developing value-added tasks (Giovanni, 2021). However, GVCs are multiple, and their operating models are diverse. It is therefore important that the country or the local company properly assess their up-scaling capabilities, and choose a GVC with the same-shared values, and interests. In this vein, the solution lies in the principle of shared value, which involves creating economic value in a way that also creates value for society by addressing its needs and challenges. Businesses must reconnect company success with social progress by creating new ways to achieve economic success (Porter et Kramer, 2011). Not to



mention other factors come into play such as CVG governance (Gereffi, 2005) or industrial and trade policy (Pietrobelli and Staritz, 2018).

To our knowledge, on the one hand, the global performance of GVC is linked to the positive and sustainable impact that must be generated by production and assembly operations in the territories of the countries where the firms and their subsidiaries operate. On the other hand, they must imperatively act on social acceptability and integrate CSR as a lever for GVC performance, these are essential components of the firms' strategy.

However, it is necessary to distinguish between global and traditional GVCs. The value chains of global businesses are today derived by international locomotives through which local producers are Tier #1 and #2 equipment manufacturers. Leading companies are often multinationals and rarely set up Joint Ventures (JV) with Moroccan companies. The local SMEs often act only in Tier #3 as a subcontractor, or even Tier #4. This is not new but raises many concerns about the ability to capture the value and operate sustainable steps of value chains. The important challenge for Morocco today is to go backward gradually, the scheme would be subcontracting then signing JV, and after becoming locomotives, at least regional. This observation applies to Morocco's so-called "global professions" sectors such as automotive, aeronautics, and electronics.

For the GVC of the agri-food industry, if the value chain is backed by solid local agriculture, we have national "champions" such as Cosumar, Lesieur, and Copag Jaouda, etc. The same applies to phosphates and the fishing industry. However, if they take advantage of access to specific assets, very few take the leadership in their global GVC like OCP in the phosphate industry. In addition, our diagnosis of the GVC of textiles and clothing highlighted two trends that must be considered. First, the positioning of Turkey is based on a very competitive pricing policy. Second, the upstream integration (fabric) is very expensive, thus requiring more capital, energy, and R&D. It is, therefore, appropriate for the case of Morocco to capitalize on national success stories such as Diamantine and Marwa by proposing an authentic and traditional offer, but it is far to obtain a solid control of a large part of textile GVC.

Considering the four case studies we analyze, it appears that GVC governed by private national (OCP governance) or MNEs (the case of Stellantis and Renault) adopt two complementary initiatives to implement their shared value strategies:

- An industrial initiative (purchasing processes dedicated to local companies),
- A societal initiative (sustainability and entrepreneurship programs).

Thanks to the strict control of an essential mining resource, the OCP Group has successfully completed an industrial transformation enabling it to make a transition toward high value-added products (fertilizers and derivatives). Thus, R&D is becoming an essential area of activity for OCP. In automotive, the merger of PSA and Fiat Chrysler to create Stellantis has led to a more integrated and competitive industrial group. The key infrastructures like Tangier Med Port and the HST are the backbone of this automotive GVC. MNEs take advantage of these huge national investment efforts, and the industrial ecosystems expect to take advantage for enlarging their scope of activities and control of value added.

Moreover, despite the support of the government, the less sophisticated GVCs (Agri-Food and Textile) remain dominated by buyers or global brands. Moroccan companies appear mostly like local producers, and they must find the industrial critical mass and improve the quality of products, in hyper-competitive contexts.

Table 5:

## The Different Governance Models of GVC in Morocco

GVC	GOVERNANCE	PLACE WITHIN THE GVC	CHALLENGES
Phosphates and derivatives	<ul style="list-style-type: none"> <li>- Public governance</li> <li>- National mining resource</li> <li>- GVC orchestrated by OCP Group</li> <li>- Present throughout the entire value chain</li> </ul> <p>It is a Moroccan locomotive, with a corporate strategist around Business Unit network</p>	<ul style="list-style-type: none"> <li>• Mining</li> <li>• Fertilizers</li> <li>• Research and development (UM6P University)</li> <li>• Declared African ambition</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Strategic Transformation</li> <li>&gt; CSR</li> <li>&gt; A firmer regulatory environment requiring producers to renew their business models</li> <li>&gt; Significant legal risks arising from the effects of certain chemicals on human health</li> </ul>
Automotive	<ul style="list-style-type: none"> <li>- European decision center</li> <li>- GVC structured by MNEs</li> <li>- GVC particularly accelerated by 2 manufacturers: Stellantis and Renault</li> <li>- Foreign locomotives</li> </ul> <p>Moroccan SMEs are very little integrated</p>	<ul style="list-style-type: none"> <li>• Morocco has developed a modern infrastructure: The HST and the Tangier Med port are the backbone of this GVC</li> <li>• Electric car as further step</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Constraining environmental standards requiring heavy investments (CO2 standard).</li> <li>&gt; E-mobility</li> <li>&gt; Value sharing</li> </ul>
Agri-Food	<ul style="list-style-type: none"> <li>-Market-driven governance</li> <li>- GVC governed by European market (Spanish in particular)</li> </ul> <p>Multiple GVCs (sardines, tomatoes, citrus, red fruits, etc.) supported by the State and at the crossroads of two national sectoral plans (PAI and PMV)</p>	<ul style="list-style-type: none"> <li>• Agricultural production capacity</li> <li>• Cost leadership</li> <li>• Product quality</li> <li>• Green (2nd phase of the Green Morocco Plan)</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Climate-dependent sector</li> <li>&gt; Health risks</li> <li>&gt; Industrial critical mass</li> <li>&gt; R&amp;D led by the private sector</li> <li>&gt; Energy and water resources</li> </ul>
Textile and clothing	<ul style="list-style-type: none"> <li>- Buyer-driven value chains</li> <li>- Spanish and Turkish brands dominate Moroccan textile industry</li> </ul> <p>The Spanish Inditex Group Controls Moroccan subcontractors</p>	<ul style="list-style-type: none"> <li>• Production cost</li> <li>• Industrial flexibility</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Lack of creativity</li> <li>&gt; Energy</li> <li>&gt; Market massification</li> <li>&gt; High elasticity of demand</li> <li>&gt; Sensitivity to prices</li> <li>&gt; E-commerce</li> <li>&gt; New trends in second-hand markets</li> </ul>

In the context of Morocco, three actions can be implemented to accelerate the integration of Moroccan into Global Value Chains, including:

- The restructuring of Moroccan SMEs through the creation of a national program or Joint-Venture fund to set up a learning curve allowing a gradual integration of Moroccan players into the international dynamics of GVC.
- The massification of markets to obtain the necessary volume and critical mass that justify the canvassing and installation of large locomotives.
- Supporting industrial dynamics through specific training and R&D led by the private sector. In this case, the Moroccan Automotive Center of Stellantis and the Industrial Competence Centers of OCP (ICC) open the way to the emergence of new innovative and localized production sites.

Growth prospects with the regionalization of global value chains (i.e., collaborations and innovations among geographically close national economies to limit the risks of supply chain disruptions) exist (Enderwick and Buckley, 2020; Gereffi, 2020; Shih, 2020; Zhan, 2021) but their application in North Africa will take several years.<sup>23</sup> North African countries are vertically integrated into global value chains within a framework of mutual competition and with few horizontal interconnections (this is the case of Morocco, Egypt and Tunisia). Let's not forget the existing political, transportation and logistical problems that affect value-added trade in the Maghreb region. This is likely to involve more integrated foreign partners that require innovative technologies and supplier ecosystems not available at regional/local level and significant transformative and sustainable investments.

However, a 2020 McKinsey report<sup>24</sup> reports that some multinational firms have already begun processes to diversify and transform their supplier base by fostering longer-term cooperative and innovative relationships at the regional level.

## VII. MAIN LEARNINGS FROM THE MOROCCO'S ECONOMIC CONSOLIDATION IN THE GVCs

This paper discusses some perspectives about the integration of the Moroccan economy into the changing world economy. We carefully identify the different scales and levels, oscillating between the "local actor" and the "global actor". The four various GVCs studied, as part of this paper do not provide a full and complete answer to the socio-economic development of national economies. However, on the one hand, these GVCs create a strong expectation of wage, employment, and subcontracting. On the other hand, the local actors are still too limited in their scope and control of value chains. Thus, the disconnects between Stellantis, OCP and Inditex and other local actors could be reduced.

This paper also delivers an update understanding of Morocco's participation in GVCs, particularly in four areas that go beyond the boundaries between "private governance" and "public governance". This paper helps also to perceive the extent to which, for example, OCP Group's targeted and integrated industrial policy, coupled with partnerships and subsidiary public governance. As result, it illustrates how can works efficiently empowerment of society and activation of local initiatives. Out of four GVCs, two illustrates how and at what extent the effective collaboration between public and private actors can positively influence changes and the amount of return to society.

23. <https://knowledge.uclga.org/IMG/pdf/promotiondeschainesdevalueurregionalesenafriquedunord.pdf>

24. McKinsey. (2020). Resetting supply chains for the next normal

According to a study co-financed by EuroMed and the African Development Bank in 2019 on the identification of obstacles to the integration of Moroccan SMEs into some GVCs,<sup>25</sup> it appears that these SMEs are very poorly integrated and lack resources and ambitions. The analysis of the survey data done in this report also leads to the conclusion that the major constraints of SMEs participation in GVCs are twofold: the first contact with multinational firms, and the difficulties of setting up products and services that comply with high technological standards. Moreover, three other complementary obstacles are mentioned: the difficulties of the contracting parties, the weak competitiveness, and the logistics service ranked 3rd, 4th, and 5th in the perception of Moroccan entrepreneurs. This work also highlights needs and requests often common: financing, support for contact with firms, and support for compliance with GVC standards.

In addition, it emerges from our interviews with Moroccan SMEs that the market, financing and support towards competitiveness and adaptation such as the CO2 standard, and technological standards are increasingly taken into consideration by Moroccan JVs in their way of figuring out the future of GVC integration. However, the attention paid to these subjects remains dependent on the administrative and economic problems they face daily, including administrative burden, transport and raw material prices, unfavorable markets, lack of visibility, exchange rate risk, weak R&D and high taxes.

Finally, we identify three trends. First, the strategic governmental ambition to solve all problems, sometimes in the urgency, sometimes through a coherent policy to supply infrastructures. We identify a constant effort to prefer the subsidy of the local production “deviating” to the emergence of SMEs and strong and innovative locomotives. Second, we assess the belief of certain powerful private groups in a substitution, even partial, to the role of the Government in key territories, and through the decision to perform their integration into the global economy (evaluated in the short term). Third, all must match the ESG and sustainability challenges. This direction might fuel further research on GVCs.

## 7.1. Private-private Initiatives and Territories

First, it is necessary to target both the sector level and at the level of suppliers (foreigners and Moroccan) before developing the roadmap dedicated to quality upgrading. Thus, the integration of Morocco into the GVC cannot address the needs of all the leading companies. At the same time, the goal is not to replace existing GVCs. It is, therefore, necessary to clarify the targets of the integration policy on two main axes:

- A sector axis: The choice of target sectors must obey both the potential of the sectors, the specificities of the territories concerned, and the needs of GVC suppliers.
- A supplier axis: Beyond the traditional population of suppliers with a high level of capital and education (the easiest to access population), it is a question of prioritizing the support of projects from the most structured parties (Professional Confederations, Business Networks, Chambers of Commerce, and Industry, etc.).

### 7.1.1. Clustering the SMEs

One of the major determinants of GVC performance remains access to markets, particularly local markets. The regions where a growing number of GVCs are in Morocco (Tangier and Kenitra, in particular) are territories where the activities of these GVCs represent an important weight in the

25. [https://www.femise.org/wp-content/uploads/2019/09/FEMISE-EuroMED-3-FR\\_compressed.pdf](https://www.femise.org/wp-content/uploads/2019/09/FEMISE-EuroMED-3-FR_compressed.pdf)

local economy and GDP. Although efforts are currently being made in this direction, local perception remains the predominance of foreign or sometimes domestic suppliers. A committed perspective in this direction should be undertaken with the following objectives:

- The acceleration of “local content”,<sup>26</sup> either directly through an entrepreneurial and support process, or through a subcontracting strategy.
- Support for the emergence of local champions in certain priority sectors.
- Supporting local suppliers in their upgrade and consolidation process.

One direction might be to encourage the development of shared workshop, based on SMEs participation and mutualization of tools and equipment dedicated to innovation and new technologies. The objectives would be to create a favorable environment to innovation, like Makerspaces,<sup>27</sup> with a cluster effect along the value chain that could crystallize the integration of local companies, anchoring and interacting with the other GVC structuring projects, through a global service offer:

- Entrepreneurial, digital, and financing support.
- Access to high-tech machines (numerically controlled, 3D printing, etc.) and low-tech also to support the professions like the industrial maintenance, parts and components, service to industry, renewable energies, circular economy, recycling, metal creation, and wood, etc.
- Manufacture of prototypes and innovations in the industrial exchanges within GVCs (parts and components, transfer of technologies).

The role of such ecosystems, cluster, or makerspaces in each GVC would help for a backward and upgrading move of SMEs in an emerging country. The vision to be designed for a global deployment should above all consider the specificities explicit to each of the GVCs. It must also be part of the system of governance structures and structuring projects undertaken by multinational firms or their subsidiaries. A strategy for duplicating GVC “Integrator Makerspace” is based on different factors: Identification of strategic partners, skills transfer, specialized equipment, solution testing, feedback from the field and local learning, etc.

### **7.1.2. Favoring the MNEs Involvement in Sustainability Policies**

In addition, to strengthen the sensitivity of the makerspace to sustainable development, it is possible to create sustainability challenges among leading companies and suppliers, either to submit technical problems encountered at the GVC manufacturing or assembly site, or problems related to sustainability such as product recycling, the fight against pollution, and lowering energy consumption. Examples of such challenges from the simplest to the more complex are related to recycling of obsolete production equipment, the second life of objects for sustainability, repairing parts and components by 3D printing, objects with very low energy consumption, or technical improvement to a machine currently in use, etc.

26. [https://read.oecd-ilibrary.org/environment/overcoming-barriers-to-international-investment-in-clean-energy/local-content-requirements-in-the-solar-and-wind-energy-global-value-chains\\_9789264227064-6-en#page1](https://read.oecd-ilibrary.org/environment/overcoming-barriers-to-international-investment-in-clean-energy/local-content-requirements-in-the-solar-and-wind-energy-global-value-chains_9789264227064-6-en#page1)

27. A social experiment around manufacturing has been launched in Belgium with even the possibility to receive orders directly (<https://www.microfactory.be/en>) and an interesting experience is conducted in Kenya: <https://medium.com/gearbox-international-foundation> create a local ecosystem of SMEs.

Overall, the strategy for integration into GVCs must consider the ecosystem approach. Several stakeholders are currently operating at the level of GVC installed in Morocco. They have overall sectoral and functional orientations, and primarily address activities such as services, manufacturing, assembly, export, and even research and development. It is not a question for Morocco to replace these subsidiaries and suppliers.

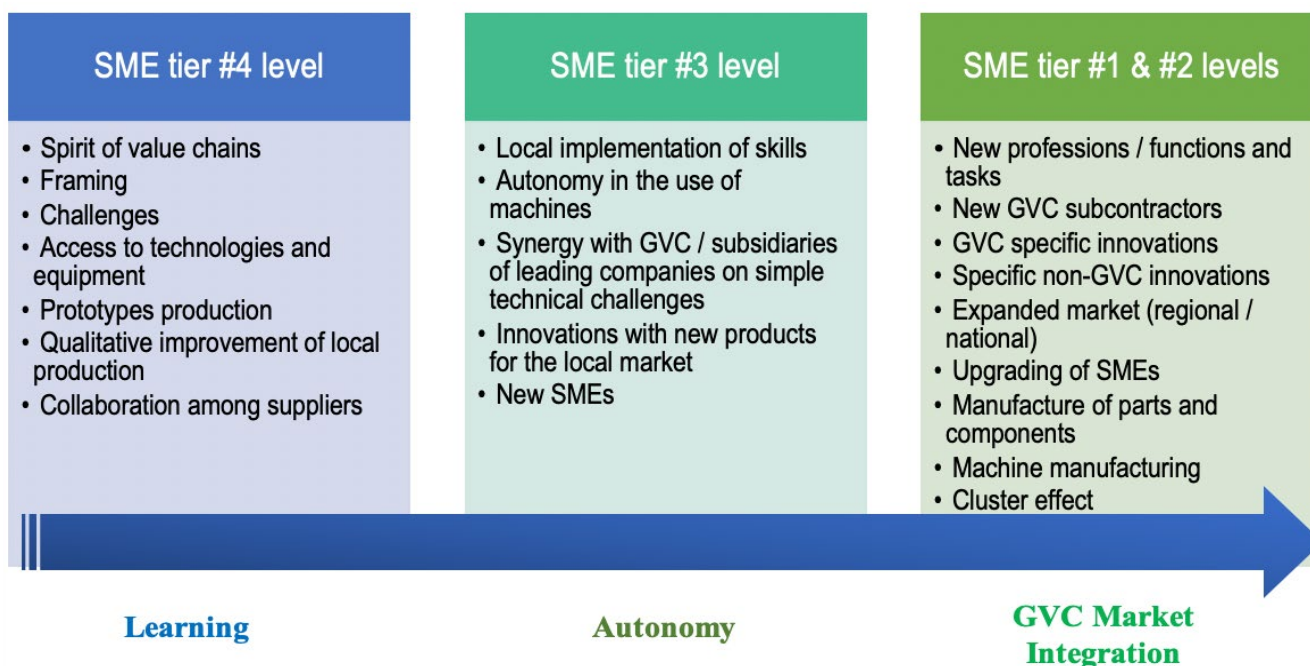
In a context of uncertainty, multinational firms express more needs in terms of subsidiarity and coordination to have a close follow-up at territorial and local levels. Thus, Morocco and firms should consider this need for interdependencies:

- At the level of the choice of sector offers/tasks to be developed within the GVC.
- In terms of providing the necessary expertise, technology, and know-how.
- At the level of information to be offered to the target of local and foreign suppliers.

As suggested, it is time to implement innovation to create a national economy capable of overcoming GVC challenges and transitioning toward quality upgrading and sustainable development. The following Table 6 traces the three phases of a GVC recovery in the socio-economic context of Morocco.

Table 6:

### From Subcontracting to SME Ramp-up: Moving up to a Better Control of Value Added?



## 7.2. Public-private collaborations

If the Moroccan State was at the origin of the major strategic choices of integration into the global economy, it is through superior comparative advantages and strong SMEs that the Moroccan economy should face the industrial, social, and environmental challenges of tomorrow. If we were able to bring some new elements likely to add to the reflection of the articulation between the GVC and the national economy, this work will not be ineffective.

We have observed how Morocco's participation has progressively evolved in advancing GVCs. The automotive ecosystem in Morocco is a good example. We also identified how the OCP Group has successfully innovated in implementing an agile ecosystem around phosphates and fertilizers. In cooperation with public entities, OCP also created the Mohamed VI Polytechnic University to become the new growth engine of the phosphate and derivatives industry. By extension, this modern university welcomes laboratories that can train future employees of some other GVCs.

Based on the analysis of previous experiences and practices of four different industries, we have tried to present what occurred by revealing the "why" and "how". We have mapped all global level actors involved in the four GVCs that appeared at the key moments in the process of GVCs' development, but we have also elaborated typologies of integration to show the diversity of encounters and positive interactions between the government, companies, and society around the process.

Our approach allows us to analyze the integration of Morocco in the GVCs out of the four experiences (agri-food, phosphates, automotive, and textiles) and to identify the favorable and unfavorable factors of local and global dynamics (and their social, economic, and environmental consequences). Thanks to this analysis, we show how mobilizing international and national actors around a long-term Royal vision was favorable in Morocco's case. Strategic government, responsiveness, diversity of clients and suppliers, national solidarity, and collaboration of Moroccan industrialists made Morocco a resilient and innovative country during the "lockdown" - pandemic period.

### 7.3. An ambitious national program

The four industries study helps to identify that creative human capital, participatory governance, technology, water, and energy are the key components of a more sustainable and inclusive GVC integration strategy. The success of this strategy depends on the mobilization of all driving forces of the territories where the GVCs are located and the creation of an agile ecosystem of suppliers able to offer innovative proposals and services.

The challenge for Moroccan integration policy is therefore to be as close as possible to local actors, their needs, and their expectations in getting the most from the GVCs, to act and work mutually on the challenges of governance, ESG, value sharing and innovation (Table 7).

**Table 7:**

#### Three Challenges for Moroccan Integration Policy to be combined

CHALLENGES	OBJECTIVES	ACTIONS
The challenge of governance	<ul style="list-style-type: none"> <li>• Moving from a vision of program contracts to a shared vision, supported by participatory partnership governance.</li> <li>• Broaden the current participation framework to the different stakeholders: Government - Firms - Local SMEs - Civil Society.</li> <li>• Open to NGOs and the local private sector.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Establish a permanent and constructive dialogue and proactive communication with stakeholders.</li> <li>&gt; Identify the new positioning of Morocco in the different GVCs and their operating models (targeting, choice of GVC and suppliers).</li> </ul>

<p>The challenge of shared value</p>	<ul style="list-style-type: none"> <li>• Certain growth potential requires better integration of social and environmental dimensions (transforming societal threats into opportunities).</li> <li>• Offer additional sustainable products and services.</li> <li>• Act on social acceptability.</li> <li>• Favoring projects that create jobs and have a reasonable level of investment.</li> </ul>	<ul style="list-style-type: none"> <li>• Guarantee its partners products and services with the best quality/price ratio to ensure maximum well-being with the most efficient use of local resources.</li> <li>• Create a differentiated offer based on the specific resources of the territories where GVCs are established in Morocco.</li> <li>• Develop an offer to help SMEs growth (financing, mentoring, marketing, acceleration, certification, etc.).</li> <li>• Set up a financing system adapted to the GVCs (business model and financing products).</li> <li>• Large continuous efforts to invest in education and training.</li> </ul>
<p>The challenge of innovation</p>	<ul style="list-style-type: none"> <li>• Thorough consideration of the 4th industrial revolution and automatization policy.</li> <li>• Propose a Moroccan GVC process, bringing innovation and high quality closer together.</li> <li>• Reflect on tomorrow's challenges: industrial, social, and environmental deliveries.</li> </ul>	<ul style="list-style-type: none"> <li>• New innovative localized production sites</li> <li>• Constant emulation through a dynamic challenge linking high tech and low-tech sectors, industrial production, and automatization, circular economy, and environmental and social sustainability.</li> </ul>

More recently, the impact of the Covid-19 pandemic and the interdependencies within the GVCs have made it more than necessary to change the rules of the game involving government, business associations, communities, businesses, and citizen initiatives. The Sustainable Development Goals (SDG) and the New Development Model (NDM) of Morocco set up in 2021 have put local actors at the heart of their recommendations.

The systemic GVC approach can also be materialized through the construction of a new industrial collaboration model among the different stakeholders whose purpose is to improve the value chain, develop new integration models, offer sustainable growth, and finally change the rules of the game. The objectives vary from encouraging the emergence of local players to attracting international investment with new value-added tasks and functions, to stimulate the development of local clusters around industrial ecosystems and finally to encourage the development of other activities attracted by the industrial critical mass of large national firms or MNEs.

Overall, the Kingdom must have a concern for the sustainability of the GVC and strategic independence and it has the means to do so. It would also be necessary to avoid overly dominant positions on GVC that would hinder national private initiatives. GVC must consist mainly of a network of small and medium-sized enterprises capable of offering innovative services and supplying the domestic and African markets. In a few years, explore export market niches towards the USA and Asia.



## CONCLUSION

Morocco will have to be very vigilant about the quality of the GVC projects that will be presented to it and be wary of GVC that are only attracted by the tax system and who can leave before the change of the tax system or speculators who will block positions on the ground to bargain for them afterward. At the same time, in a context of increased competition, when investment commitments are made, they will have to be enforced, which is not always the case.

As for investors and multinationals, Morocco will need trusted foreign partners to transfer technology and markets to the country, but some priority should be given to domestic entrepreneurial investors to limit the risks of large international firms that do not hesitate to cut ties if they run into trouble.

The emergence of the Kingdom in the GVCs must create sustainable value while respecting the environment. The skills and resources of multinational firms and large groups must be put at the service of local industry. The new framework for Morocco's participation in GVCs must guarantee customers and suppliers the best value for money for products and services, ensure maximum collective welfare (stakeholders and local communities), and guarantee the most efficient use of resources.

The challenge of participating in sophisticated GVCs offers Morocco the opportunity to trigger all the potential initiatives and to co-build innovative ecosystems over time. Morocco needs to expand its current participation framework to include all stakeholders. The OCP experience offers the first elements of broad and sustained governance. It also seems relevant to us to question the projection of these experiences to Africa by OCP Group on the dimensions of governance and societal contribution (well-being of stakeholders and local communities)".

Ultimately, there is no shortage of solutions to such global challenges. But a country's economic emergence in the GVC, i.e., the process that leads it to tasks and functions at both ends of the value chain, is not just a matter of a favorable environment or infrastructure alone. Other prerequisites are essential, precisely the quality of human capital, participatory governance, agile operating model, social acceptability, green energy, education, or innovation.

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