

THE IMPACT OF START-UPS IN CONSOLIDATING THE DIMENSIONS OF SUSTAINABLE DEVELOPMENT IN ALGERIA

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ABSTRACT

Most countries seek to adopt new economic models that move away from traditional pillars. Algeria follows this trend, particularly by abandoning reliance on hydrocarbons as the primary source of financing for the public treasury. Thus, the growing interest in start-ups has become essential worldwide, as the conviction has been firmly established that industrial enterprises must be stimulated and used as tools to achieve the desired economic and social objectives, after the previous focus had been solely on large enterprises and industrial poles.

Accordingly, Algeria's policy has shifted toward searching for new ways to invest and build the economy in order to stimulate development. This has led to an increased interest in start-ups, which rely on encouraging creative and innovative skills within the institutional environment.

Start-up projects are considered a key driver of economic growth and future planning, as well as an essential contributor to achieving sustainable development.

Keywords: start-ups – innovation – sustainable development – national economy.

INTRODUCTION

Start-ups constitute a major part of the economic fabric in Algeria, as they are the main engine of innovative ideas and represent a fundamental pillar relied upon to advance the national economy.

As one of the economic orientations that modern legislation seeks to promote in order to strengthen economic systems, the Algerian legislator has issued a series of legal texts within a period of three (03) years, the most prominent of which is Executive Decree (20-25) dated 15 September 2020, which establishes a national committee for granting the “Start-up” label, the “Innovative Project” label, and the “Business Incubator” label. This decree created a favorable environment by granting advantages and incentives to young people to encourage innovation, support projects, and promote them.

Continuing the efforts of public authorities to implement their policy aimed at promoting start-ups, institutional mechanisms have also been established to assist this sector in fulfilling its role. A dedicated ministry was created under Presidential Decree No. (20-01) dated 02 January 2020, appointing members of the government, and named the Ministry of Small Enterprises, Start-ups, and the Knowledge Economy.

Due to their importance in driving development, start-ups are considered among the most important engines of economic growth. This has made them a key pillar for Algeria's economic diversification and its optimal choice for promoting a modern, innovation-based economy. The state has therefore worked to support and strengthen them, as they have become the most effective tool for achieving the dimensions of sustainable development.

In addressing this topic, we pose the following main question:

To what extent are start-ups effective in consolidating the dimensions of sustainable development?

This central question leads to several sub-questions:

- What is meant by start-ups, and what are their dimensions?
- What are the most successful Algerian start-up models seeking to achieve the goals of sustainable development?

The nature of the study required combining two main methodologies:

The descriptive method, as it is fundamental to legal studies, which often involve presenting theories and juridical opinions addressing the concept of start-ups and the dimensions of sustainable development.

We also relied on the analytical method, as the study of start-ups is primarily based on analyzing the legal texts governing this new type of enterprise, from which they derive their existence and purpose. In order to reach the study's findings in a systematic manner, the topic has been divided into two sections:

Section One: The concept of start-ups

Section Two: Ways to strengthen the role of start-ups in achieving sustainable development

SECTION ONE: THE CONCEPT OF START-UPS

Defining the concept of a start-up is of great importance for any researcher studying these enterprises, which possess a set of characteristics that distinguish them from classical companiesⁱ. This is also essential for development policy-makers to enable them to design developmental programs aligned with the concept of these enterprises, which exist in different types that vary according to the nature of their activity and size.

Therefore, we will address their definition (First), then highlight their importance (Second).

First: The Meaning of Start-ups

The definition of start-ups overlaps with many related terms, which explains the multiplicity of definitions provided for them.

1. Linguistic Definition

The term "start-up" is derived from the verb "to start up." Its origin is American and consists of two parts: "start," which expresses the idea of initiation, and "up," which expresses strong growthⁱⁱ.

According to the French dictionary Larousse, it is defined as: "a young innovative company, especially in the field of new technologies."ⁱⁱⁱ

The Cambridge dictionary also defines a start-up as: "a small business that has just begun"^{iv}.

2. Terminological Definition

Jurists have not agreed on a unified definition of the start-up; therefore, we present several definitions that have contributed to shaping its conceptual framework.

Eric Ries defined it as: "a human institution designed to create a new product or service under conditions of extreme uncertainty"^v.

Researcher Paul Graham, in his article "Start-Up Growth," defined it as: "an enterprise designed to grow rapidly and seeks to create and market new technology."^{vi} It is also defined as: "a newly established enterprise that offers new products or services based on technology and innovation"^{vi}.

It is also relevant to note here the initiatives of some organizations in providing practical definitions of start-ups, such as the European Union in the 2015 European Start-up Monitor, which stated that these enterprises are characterized by innovative technologies or business models and are less than ten (10) years old.

Similarly, the World Bank's Innovative Start-up Fund in Jordan (2017) defined them as companies with operations of less than five (05) years^{vii}.

Based on the two definitions mentioned above, it is clear that these organizations established a realistic and practical definition of start-ups based on the age criterion of the enterprise.

From these definitions, several features that characterize start-ups emerge, summarized as follows:

- **They are newly established enterprises:** Their age does not exceed eight (08) years, as stated in Article 11 of Executive Decree 20-245^{viii}, which affirms that the eight-year period cannot be exceeded and is counted from the date the enterprise obtains the start-up label. Article 14 of the same decree confirms that this label is granted for four years, renewable once.

- **Rapid growth with lower costs:** Start-ups require low costs compared to the profits they generate, usually unexpectedly, as they experience a fast-growing pace and increased productivity at low cost^{ix}.
- **Use of modern technological tools:** Due to their innovative nature and reliance on modern technology, and because they carry pioneering ideas, it becomes necessary for them to market their products using modern methods such as online platforms to obtain support^x.

By examining legal texts, we note that the Algerian legislator referred to start-ups through Law 15-21 on the orientation law concerning scientific research and technological development. Article 06 of this law defines them as: “the enterprise responsible for implementing basic or applied research projects or those conducting research and development activities”^{xi}.

The legislator also attempted to refer to them in the provisions of other laws, such as Law 02-17 on the orientation law for small and medium-sized enterprises^{xii}.

From the above, we note that no comprehensive legal definition of start-ups exists. As usual, the Algerian legislator refrained from explicitly defining them, limiting his intervention to partial references in the legal texts mentioned above.

Second: The Importance of Start-ups

Start-ups hold an important position in both the global and national economy, as they are considered one of the most essential alternatives that can be relied upon. Their importance can be highlighted as follows:

1. Enhancing Innovation in Scientific Research and Technological Development

Start-ups contribute to supporting and developing scientific research, as they rely on modern technological techniques. The research team within the company works on innovation and on applying scientific outputs within universities, centers, and educational institutions^{xiii}.

In this context, Ministerial Decision 1275 “Start-up Certificate / Patent Certificate”—dated 27 September 2022 was issued. It came as part of the policy of the Ministry of Higher Education and Scientific Research to valorize the work and projects completed by students during their academic training, including master’s theses, engineering projects, or doctoral dissertations. This is done through the mechanism of the Start-up Certificate or Patent Certificate, via the digital platform “Ibtiqar,” dedicated to innovative students and project holders.

Additionally, to promote entrepreneurial culture within the university environment in line with national orientations toward strengthening the knowledge-based economy and supporting start-ups, universities encourage students to enter the world of innovation by organizing a Global Entrepreneurship Week. This includes training workshops that create opportunities for exchanging experiences between the university and economic partners, as well as lectures delivered by professors and directors of national agencies responsible for supporting and developing entrepreneurship for project holders.

Similarly, at the beginning of the 2025/2026 academic year, the university organized the Global Entrepreneurship Week under the slogan: “**Together We Build Entrepreneurial Training – Emerging Innovation – Continuous Support,**” from 17 November to 23 November 2025.

In order to strengthen students’ entrepreneurial initiative and provide an environment that stimulates creativity and innovation, the Ministry of Higher Education and Scientific Research announced the launch of the **President of the Republic Award Platform for the Innovative Researcher – 2026 Edition**, under the slogan: “**We innovate today... to build the Algeria of tomorrow.**”

2. Maintaining Competitiveness with Increased Productivity

Start-ups have played a significant role in this regard by adopting advanced technologies that have led to increased production of goods and services, accompanied by the use of innovative and low-cost production techniques^{xiv}.

3. Creating Productive Job Opportunities and Opening New Markets

Start-ups contribute to creating job opportunities due to their ability to absorb workers with limited experience, which opens the door for graduates and individuals with creative ideas.

This helps reduce unemployment and mitigate its effects^{xv}.

They may also create new markets by offering products capable of transforming the global economy.

Section Two: Ways to Strengthen the Role of Start-ups in Achieving Sustainable Development

Start-ups play a role in embodying good governance, as the integration of sustainable development into the core of an enterprise's management strategy has positive implications for reinforcing and revitalizing the dimensions of sustainable development.

First: The Dimensions of Sustainable Development

There are several definitions of Sustainable Development, and we mention some of them as examples. Among them is the definition adopted by the World Bank, which states that it is: "the process of achieving continuous balance that ensures providing future generations with the same development opportunities available today, by maintaining the stability or continued sovereignty of total capital over time."

It is clear from this definition that it focuses on the dimension of capital and ensuring its development without affecting the shares of future generations^{xvi}.

The World Commission on Environment and Development defined it as: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs"^{xvii}.

From these two definitions, we conclude that sustainable development is the type of development that meets human needs at present without undermining the ability of future generations to achieve their objectives. It emphasizes integrated and sustainable economic growth, environmental stewardship, and social responsibility.

Sustainable development consists of three integrated and interconnected dimensions: the environmental, economic, and social dimensions.

1. The Environmental Dimension

This dimension is achieved by preserving natural resources and using them optimally on a sustainable basis, while anticipating future needs for precautionary purposes. The environmental dimension revolves around several elements, including: energy, biodiversity, adaptive capacity, and biological productivity^{xviii}.

2. The Economic Dimension

The economic dimension of sustainable development focuses on improving production patterns through the use of clean energy, adopting advanced technologies, and addressing issues related to selecting, financing, and improving industrial techniques in the use of natural resources. It also includes activities related to consumption, as well as the implementation of strategies involving all societal groups.

This perspective was confirmed during the 1992 United Nations Conference on Environment and Development, which emphasized that sustainable development as a new principle of economic development must not be based solely on economic considerations without taking into account social justice, poverty reduction, environmental protection, and the preservation of natural resources^{xix}.

According to the economic dimension, sustainable development works on enhancing economic development while considering long-term environmental balances^{xx}.

3. The Social Dimension

This dimension represents the human aspect in the narrow sense, as it views growth as a means of ensuring social cohesion and achieving intergenerational equity. Current generations must consider fairness, justice, and selecting growth patterns that reflect their aspirations as well as those of future generations.

The key elements of the social dimension include equitable distribution, popular participation, and cultural diversity^{xxi}.

Second: The Role of Start-ups in Achieving Economic and Social Objectives

Start-ups play a pivotal role in consolidating sustainable development by creating a favorable environment for their growth and expansion, which generates effects of both economic and social nature.

First: Objectives of an Economic Nature

There is a set of economic objectives targeted by sustainable development, which include the following:

1. Developing Industry, Innovation, and Infrastructure:

Establishing infrastructure is one of the main concerns of sustainable development, in addition to encouraging industry and innovation with the aim of increasing productivity and improving income. Among the companies in this field is Robotics Connect in Portugal, specialized in drones.

2. Providing Decent Work and Stimulating Economic Growth:

Among the objectives of sustainable development is providing decent work that leads to economic growth, such as the Argentinian start-up Workana, which seeks to balance job seekers and labor-market needs.

Below are examples of Algerian start-ups with an economic dimension:

- **Yassir:** A VTC (on-demand transport) application offering delivery services and electronic payment. It has become a model of a successful start-up, relying on technology to solve transport issues and expanding its services to payment and delivery, contributing to its growth and spread.
- **Siamois QCM:** An educational (e-learning) platform for medical and health students and competitive exam preparation. It provides a digital learning solution that reduces pressure on students and offers a modern alternative in a constantly demanding field.
- **MdinJdida Platform:** An electronic marketplace using a multi-vendor marketplace model, providing opportunities for small and medium traders to expand and contributing to the development of local digital commerce.
- **Herd Academy:** An online training platform that increases access to training and education, opening horizons for skill development and supporting the growth of human capital as a key element of the economy.

Second: Objectives of a Social Nature

We present below a set of social objectives that sustainable development aims to achieve:

1. Eradicating Poverty and Hunger:

Demographic growth contributes to the emergence of food-related problems in several countries. Among the solutions proposed by start-ups are innovations to improve agricultural production while rationalizing resource use through smart farms and automated vertical agriculture. A leading example is Next Food. This mechanism is sustainable and scalable to combat hunger^{xxii}, contributing to food security and strengthening sustainable agriculture.

Successful examples of start-ups include:^{xxiii}

- **ECOIA:** A cooking-focused start-up that saves energy by relying on solar power, balancing between batteries, solar panels, and an insulated cooking pot. It offers a sustainable alternative for people in shelters and replaces wood-fueled cooking.
- **DOT Glasses (Czech Republic):** Provides low-cost prescription glasses globally. Many people need eyeglasses but cannot afford them, which affects their education and hinders job opportunities. The company seeks to offer affordable glasses for this group.
- **PESITO (Denmark):** Provides affordable solutions for cooking. Poor families often lack basic cooking equipment; this company offers such equipment at low cost.

2. Achieving Health and Education:

The goal here is to ensure healthy living, provide decent living conditions, and digitize the health sector. Education is equally important, as start-ups work on developing educational technology by using advanced audio-visual techniques to encourage scientific research, in addition to using innovative methods to track and improve student outcomes. An example is the Malaysian start-up *ME.REKA*, which offers training programs to prepare students and help them access job opportunities, in addition to promoting digital inclusion ^{xxiv}.

3. Achieving the Principle of Equal Opportunity:

Start-ups help reduce social stratification by drawing attention to the needs of vulnerable groups. A leading example is the U.S. company *AcivItale*, which works to reduce recidivism, often caused by poverty and inequality ^{xxv}.

Furthermore, sustainable development reinforces the constitutional principle of equality ^{xxvi} a principle guaranteed in international conventions and aimed at improving gender parity in all fields. Start-ups provide institutional mechanisms to protect women and meet their professional needs ^{xxvii}.

An example is the company *There She Goes*, which created a mobile application—"The Platform"—specifically for working women, enabling them to attend scientific events such as conferences and seminars, and meet businesswomen to enhance their professional lives. The app provides them with a digital interface to help them manage their work ^{xxviii}.

4. Building Effective Institutions to Achieve Justice:

Start-ups work to ensure justice for all through efficient institutions subject to legal accountability and by strengthening the work of judicial bodies and consolidating their independence. This helps protect everyone from widespread crimes such as human trafficking and child abuse ^{xxix}.

An example is the start-up *OS City* in Panama, which developed the *SMART-CID* platform to support the government by addressing citizen concerns and providing information through artificial intelligence tools ^{xxx}.

5. Establishing Smart Cities:

Building smart cities is an indicator of urban progress. One of the main challenges of sustainable development is creating them at affordable cost and with high standards. An example is the Latin American company *VIKUA*, which focuses on transforming cities into smart cities using artificial intelligence ^{xxxi} to develop urban-management programs aligned with government requirements ^{xxxii}.

In recent years, Algeria has seen the emergence of several socially oriented start-ups that combine innovation with solving societal problems. Examples include:

1. **Care4:** A digital platform for home healthcare, connecting patients with nurses and doctors to provide medical services at home, improving access to healthcare especially for the elderly.
2. **Yassir Care** (branch of *Yassir*): Provides emergency health services and medical appointments through the app, improving access to fast medical care for vulnerable groups.
3. **Nechfa:** A platform linking charitable organizations with donors, ensuring greater transparency in tracking donations and distributing them to those in need.
4. **Mawati:** An app that enables people with disabilities to identify accessible locations (ramps, elevators...), enhancing their social inclusion.
5. **Green Algeria:** A start-up specialized in recycling plastic and waste, employing unemployed youth and contributing to environmental protection.
6. **Zig4Med:** A platform that facilitates access to rare or missing medications, with a significant social impact, especially for patients with chronic diseases.
7. **She Codes DZ:** An initiative and social enterprise that trains girls and women in programming and digital skills, aiming at empowering women economically.
8. **Saidal Innov** (internal accelerator): Supports socially impactful projects in healthcare and local pharmaceutical production.

9. **JibLi:** A delivery platform specifically designed for people with limited mobility and the elderly to facilitate their daily needs.
10. **Yelmouss:** A social project for recycling used clothing and distributing it to those in need or selling it at symbolic prices.

Third: Environmental Objectives

We present below the environmental objectives that sustainable development seeks to achieve:

1. Achieving Water Security

Governments are committed to providing a safe and clean water environment by relying on advanced technologies to obtain sufficient quantities of fresh water^{xxxiii}. This commitment does not stop here; it also extends to preserving seas, oceans, and all marine resources and exploiting them rationally to ensure their availability for future generations. Preserving the chemical and natural composition of water helps protect human life.

A leading example is the work of Ran Marine, which develops water-based drones that governments can use to clean and monitor water quality^{xxxiv}.

2. Achieving Energy Security

Recent statistics on renewable energy show a noticeable increase due to the rapid growth of hydropower, wind power, and solar energy. These types of energy are promoted by start-ups seeking to strengthen alternative energy solutions.

An example is the Swiss company V-Labs, which develops mechanisms allowing electricity providers to place underground cables with precision, particularly in informal urban constructions. This contributes to ensuring reliable energy supplies for residents^{xxxv}.

3. Achieving Climate Balance and Preserving the Ecological System

Due to climate change being a major challenge, start-ups work on implementing urgent measures to face it by regulating emissions and strengthening developments in renewable energy. One example is the Spanish company Green Urban Data, a software platform with a global database aligned with environmental standards^{xxxvi}.

Below are examples of Algerian start-ups active in environmental fields:

- **N-Recycli:** A digital application for waste sorting that connects informal waste collectors with collection points to enhance the circular economy. Founded in 2019, this initiative demonstrates how a digital platform can transform plastic, paper, and cardboard management into citizen-engagement opportunities. It received international recognition by winning the “Young Social Entrepreneurs Award” in Doha, Qatar, for its social and environmental impact.
- **Revadex:** A digital marketplace in Algiers that connects waste producers (companies and offices) with recyclers, facilitating the reuse of secondary raw materials. Founded in 2019, Revadex installs “Revabox” containers for sorting plastic, paper, metal cans, and organic waste separately, turning each waste item into a resource. The company has successfully mobilized local partners to deploy its containers and raise awareness about the green transition.
- **Shems W Tabrid:** A start-up developing cooling systems that run 100% on solar energy and operate on direct current without converters. These systems are ideal for remote areas with limited electricity. Led by a family team, this project demonstrates how sustainable innovation can support cold-chain logistics for agriculture in remote regions. It won the Green Tech Challenge organized by BNP Paribas Algeria in October 2023 and is preparing to deploy prototypes to prove their efficiency and reliability.
- **Green-AI Energy Biogas:** A company providing fully off-grid biogas systems to enable customers to live more sustainably in Algeria.
Green-AI Energy serves households, farmers, restaurants, refugees, camps, and marginalized communities, offering modular biogas systems that are completely off-grid, allowing users to live more healthily, efficiently, and sustainably.

It is clear from the above that start-ups are making environmental approaches profitable. Green marketing that creates solutions for environmental impacts through developing eco-friendly products gives enterprises a sustainable competitive advantage and ensures long-term profitability^{xxxvii}.

Furthermore, protecting terrestrial ecosystems and using them sustainably is among the priorities of start-ups. An example is the Argentine company Munidigital, which developed an application that enables citizens to geotag trees in their areas, facilitating better management of municipal lands and natural resources^{xxxviii}.

Second: The New Economic Model for Start-up Contribution to Sustainable Development in Algeria

As one of the economic orientations that modern legislation seeks to promote similar to the Algerian legislator start-ups achieve a significant portion of the objectives targeted by sustainable development^{xxxix}.

This was embodied by the President of the Republic, Abdelmadjid Tebboune, in the first year of his term, when he established the main features of the new plan extending across three phases until 2025, through the following points^{xl}:

- The new economic model is based on diversified growth and the knowledge economy, adopting a new industrial policy focused on micro and start-up industries, prioritizing industrial assembly that guarantees the highest rate of national integration.
- Activating one million micro and start-up enterprises to develop the economic fabric and generate added value.
- Developing micro and start-up enterprises active in the agricultural and industrial sectors, sending start-ups abroad to develop community digitalization programs and platforms, promoting integrated solutions and technological-financing tools, supporting industrial intelligence, and encouraging innovative project holders to build fertile ground for entrepreneurship, knowledge transfer, improving the quality of local products, and enhancing their competitiveness.
- Facilitating loans and supporting start-ups to invest in Africa.
- Inventorying all unused natural national resources to increase export capacity, compensating for any deficits in hydrocarbon revenues, and safeguarding the rights of future generations.
- Building a genuine national industry within a real productive economy with clear deadlines, objectives, and a legal framework that promotes investment, reorganizes the public economic sector, revitalizes it, and completely separates it from the public treasury as a primary funding source.
- Promoting and supporting knowledge-based economic activities with high technological value, supporting small enterprises, encouraging start-ups led by young graduates, and strengthening the role of the construction and public works sector due to its key importance in supporting economic growth and absorbing unemployment.
- Improving the business climate through simplifying procedures for establishing enterprises, providing land, enabling access to loans and quality public services, and reforming and modernizing the banking system and administration while combating bureaucratic practices.
- Reviewing trade-defense rules by reconsidering economic and trade agreements and redirecting the diplomatic apparatus to serve the country's vital economic and developmental interests. In this context, the newly created Agency for Cooperation and Development will help improve the conditions for Algerian operators to access international markets especially in Africa attract foreign investments, and promote the Algerian market. The new economic recovery plan will eliminate long-standing bottlenecks.

In addition, the policy includes substituting imported products with locally manufactured ones to preserve foreign-exchange reserves and strengthen the national enterprise fabric, while giving special

attention to small, medium, and start-up enterprises and valuing creative human capacities, including those abroad.

In the same context, Algeria has made significant efforts to structurally reform its economy by 2030, aiming to achieve the long-awaited dream since independence building a real, diversified, and competitive economy ^{xli}.

Based on this plan, it is evident that Algeria will maintain the social character of the state while implementing the recovery plan according to a structured timetable set by the government.

CONCLUSION

From the above, we conclude that the Algerian state has given considerable attention to start-ups by providing opportunities for youth to invest in various productive sectors through granting incentives and guarantees in this field, with the aim of achieving economic development and keeping pace with global transformations, particularly industrial and technological progress.

The legislator has worked to follow global developments by issuing a series of legislative and regulatory texts that encourage and stimulate investment outside the hydrocarbons sector, by providing a suitable and favorable environment for this type of enterprise.

Within the framework of developing and promoting small enterprises as a unified sector to achieve sustainable development, start-ups and innovation emerged as the driving force of the new economy in Algeria, requiring support through all institutional mechanisms, as they help to realize the projects of innovative young people.

In addition to establishing institutional mechanisms that embody the state's policy in promoting, supporting, and developing start-ups, a set of legislative texts has been issued, the latest of which is the Finance Law for 2025, which contains special provisions that encourage start-ups in several fields. This legal arsenal is capable of creating a conducive environment for the development and diversification of the national economy, offering new opportunities for young people to realize their ideas and ambitions and to market their innovative products in a competitive environment based on flexibility and innovation.

All of this enhances the role of start-ups in consolidating sustainable development as a modern developmental model that replaced the traditional concept of development, which focused only on the economic dimension, whereas sustainable development integrates economic development, social development, and environmental protection. It is therefore based on three dimensions: an economic dimension, a social dimension, and an environmental dimension.

In order to promote start-ups in Algeria, we propose the following recommendations:

- The necessity of promoting start-ups, especially among youth and higher education institutions, a trend recently adopted by Algerian universities, and raising awareness of the extent of their contribution to achieving sustainable development.
- The need to facilitate procedures for obtaining the “Start-up Label” to encourage investors toward innovation and creativity, which will undoubtedly contribute to achieving sustainable development in Algeria.
- Establishing green financial incentives: through tax exemptions for start-ups developing solutions in energy, waste recycling, smart agriculture, and clean transportation. Providing “targeted” funding in favor of projects with sustainable impact (Green Funding).
- Integrating sustainability principles into business models: adopting a Business Model that consumes fewer resources and relies on ethical supply chains, and focusing on solutions that reduce waste, such as recycling, circular economy, and sharing economy.
- Using technology as a lever for sustainability: adopting Artificial Intelligence, the Internet of Things (IoT), and Blockchain to improve efficiency and reduce costs.
- Developing sustainable products and services: such as eco-friendly products, solutions to reduce pollution or valorize waste, as well as strengthening digital services that reduce paper and fuel consumption, and encouraging a culture of responsible consumption and the green economy.

- Creating testing spaces (Sandbox): by allocating areas or municipalities that allow start-ups to test their sustainable solutions on the ground (e.g., electric mobility solutions or smart waste management).
- Developing green investment funds: supporting venture capital funds dedicated to clean technology, and encouraging investors to finance projects that measure their social and environmental impact.

Through this, start-ups in Algeria can transform from small projects into engines of green growth and economic transformation.

LIST OF SOURCES AND REFERENCES

First: Sources

4. Constitutions

- Presidential Decree No. 442-20, dated 30 December 2020, concerning the issuance of the constitutional amendment approved in the referendum of 1 November 2020, Official Gazette No. 82.

5. Legal Texts

- Law (15-21) dated 30 December 2015, related to the framework law on scientific research and technological development, Official Gazette No. 71, amended and supplemented by Law (20) dated 30 March 2020, Official Gazette No. 20.
- Law No. (17-02) dated 10 January 2017, related to the framework law on the development of small and medium-sized enterprises, Official Gazette No. 02.
- Executive Decree No. (20-245), establishing a national committee for granting the “Start-up” and “Innovative Project” labels, and defining its tasks, composition, and functioning, Official Gazette No. 55, issued on 21-09-2020.

Second: References

1. University Theses

- Mohamed Sebti, The Effectiveness of Venture Capital in Financing Start-up Projects, Master's dissertation in Management Sciences, specialization: Financial Management and Business Administration, Mentouri University, Constantine 1, academic year: 2008/2009.

2. Articles

- Cherifa Bouchaour, The Role of Business Incubators in Supporting and Developing Start-ups: A Case Study of Algeria, Al-Bashaer Economic Journal, University of Bechar, Vol. 04, No. 02, 2012.
- Nasser Bouaziz, Mounsef Ben Khadija, The New Economic Model in Algeria – Between Reality and Implementation, Journal of Economic and Financial Studies, Issue 10, Part 20, 2017.
- Marwa Ramdani, Bouguerra Karim, Challenges of Start-ups in Algeria: Models of Successful Arab Companies, Annals of the University of Bechar in Economic Sciences, Vol. 02, No. 03, 2020.
- Abdelhamid Lamine, Samia Hassain, Measures Supporting Start-ups and Innovation in Algeria: A Reading of Executive Decree No. 20-254, Journal of Research in Contracts and Business Law, University of Brothers Mentouri, Constantine 1, Vol. 05, No. 02, (2020).
- Linda Drani, Strategies for Supporting and Financing Start-ups in Algeria to Reduce Unemployment, Journal of Legal Studies, Yahia Fares University, Medea, Vol. 08, No. 02, June 2022.
- Yacine Mimouni, Sofiane Bougtaya, et al., The Problem of Creating and Developing Start-ups in Algeria, Journal of Administrative and Economic Research, 2021.
- Khair Eddine Bouzerb, Aboubakr Khouwaled, Financing Start-ups in Algeria Between Reality and Aspiration – An Analytical Study, published in the international collective book titled: The Problem of Financing Start-ups in Algeria Between Traditional and Modern Methods, University of Jijel, 2021.

- Hussein Youssef, Ismail Seddiki, A Field Study on the Reality of Establishing Start-ups in Algeria, *Annals of the University of Bechar in Economic Sciences*, Vol. 08, No. 01, 2021.
- Ali Bayazid, Sustainable Development: Its Concept, Dimensions, and Indicators – The Case of the Global Environmental Performance Index, *Al-Maqrizi Journal for Economic and Financial Studies*, Vol. 06, No. 02, 2022.
- Rokia Hadadou, Green Finance as One of the Tools of the Green Economy to Achieve Sustainable Development in Algeria, *Al-Maqrizi Journal for Economic and Financial Studies*, Issue 02, 2021.
- Zawya Rachida, Dimensions of Sustainable Development in Algeria, *Journal of Economic Studies*, 2019, Issue 01, Vol. 02.
- Zerman Karim, Sustainable Development in Algeria Through the Economic Recovery Program 2001–2009, *Journal of Economic and Administrative Research*.
- Souria Boutrafa, Najwa Nasra, The Role of Start-ups in Achieving Sustainable Development – The Case of Algeria, *Journal of Economics and Sustainable Development*, Vol. 05, No. 01, 2022.
- Farouk Belaabed, Djamel Bousta, The Role of Start-ups in Achieving Sustainable Development, *Journal of Law and Political Sciences*, Vol. 09, No. 01, 2023.

3. Scientific Presentations

- Farouk Khalaf, The Legal Framework for Start-ups and Business Incubators in Algerian Legislation, 12th National Symposium on “Start-ups and Incubators”, Faculty of Law and Political Sciences, University of Martyr Mohamed Lakhder, El Oued, 15 February 2021.
- Amal Bousmina, Asmaa Sefari, Presentation titled: The Role of Start-ups in Serving Sustainable Development Goals, National Symposium titled: “The Shift Toward Investment in Start-ups in the Context of the Knowledge Economy as a Strategy for Achieving Sustainable Development”, Faculty of Economic, Commercial and Management Sciences, University of Oum El Bouaghi, 02–03 November 2022.

FOOTNOTES:

ⁱ Farouk Khalaf, The Legal Framework for Start-ups and Business Incubators in Algerian Legislation, 12th National Symposium on “Start-ups and Incubators”, Faculty of Law and Political Sciences, Martyr Mohamed Lakhder University, El Oued, 15 February 2021, p. 10.

ⁱⁱ Cherifa Bouchaour, The Role of Business Incubators in Supporting and Developing Start-ups, A Case Study of Algeria, *Al-Bashaer Economic Journal*, University of Bechar, Vol. 04, No. 02, 2012, p. 420.

ⁱⁱⁱ See website: <https://www.larousse.fr>, accessed on 15/03/2025 at 01:45.

^{iv} See website: <https://www.Dictionarycambridge.org>, accessed on 16/03/2025 at 09:30.

^v Marwa Ramdani, Bouguerra Karim, Challenges of Start-ups in Algeria: Models of Successful Arab Companies, *Annals of the University of Bechar in Economic Sciences*, Vol. 02, No. 03, 2020, p. 278.

^{vi} Abdelhamid Lamine, Samia Hassain, Measures Supporting Start-ups and Innovation in Algeria: A Reading in Executive Decree No. 20-254, *Journal of Research in Contracts and Business Law*, University of Brothers Mentouri, Constantine 1, Vol. 05, No. 02, (2020), p. 08.

^{vii} Linda Drani, Strategies for Supporting and Financing Start-ups in Algeria to Reduce Unemployment, *Journal of Legal Studies*, Yahia Fares University, Medea, June 2022, Vol. 08, No. 02, pp. 154–155.

^{viii} See: Executive Decree No. (20-245), establishing a national committee for granting the “Start-up” and “Innovative Project” labels, and defining its tasks, composition, and functioning, *Official Gazette* No. 55, issued on 21-09-2020.

- ^{ix} Yacine Mimouni, Sofiane Bougtaya, et al., The Problem of Creating and Developing Start-ups in Algeria, *Journal of Administrative and Economic Research*, 2021, p. 13.
- ^x Yacine Mimouni, *ibid.*, p. 13.
- ^{xi} Law (15-21) dated 30 December 2015, related to the framework law on scientific research and technological development, O.G. No. 71, amended and supplemented by Law (20) dated 30 March 2020, O.G. No. 20.
- ^{xii} Law No. (17-02) dated 10 January 2017, related to the framework law on the development of small and medium-sized enterprises, O.G. No. 02.
- ^{xiii} Khair Eddine Bouzerb, Aboubakr Khouwaled, *Financing Start-ups in Algeria Between Reality and Aspiration – An Analytical Study*, published in the international collective book: *The Problem of Financing Start-ups in Algeria Between Traditional and Modern Methods*, University of Jijel, 2021, p. 362.
- ^{xiv} Mohamed Sebti, *The Effectiveness of Venture Capital in Financing Start-up Projects*, Master's dissertation, Management Sciences, specialization: Financial Management and Business Administration, Mentouri University, Constantine 1, academic year 2008/2009, p. 13.
- ^{xv} Hussein Youssef, Ismail Seddiki, *A Field Study on the Reality of Establishing Start-ups in Algeria*, *Annals of the University of Bechar in Economic Sciences*, Vol. 08, No. 01, 2021, pp. 71–72.
- ^{xvi} Ali Bayazid, *Sustainable Development: Its Concept, Dimensions, and Indicators – The Case of the Global Environmental Performance Index*, *Al-Maqrizi Journal for Economic and Financial Studies*, Vol. 06, No. 02, 2022, p. 275.
- ^{xvii} Rokia Hadadou, *Green Finance as One of the Tools of the Green Economy to Achieve Sustainable Development in Algeria*, *Al-Maqrizi Journal for Economic and Financial Studies*, Issue 02, 2021, p. 55.
- ^{xviii} Zawya Rachida, *Dimensions of Sustainable Development in Algeria*, *Journal of Economic Studies*, 2019, Issue 01, Vol. 02, p. 05.
- ^{xix} Zerman Karim, *Sustainable Development in Algeria Through the Economic Recovery Program 2001–2009*, *Journal of Economic and Administrative Research*, p. 10.
- ^{xx} Souria Boutrafa, Najwa Nasra, *The Role of Start-ups in Achieving Sustainable Development – The Case of Algeria*, *Journal of Economics and Sustainable Development*, Vol. 05, No. 01, 2022, p. 976.
- ^{xxi} Rachida Zawya, previous reference, p. 10.
- ^{xxii} See website: <https://www.startus-insights.com/innovators-guide/discovertopstartups-workingtowards-zero-hunger/>, visit date: 07/04/2025, at 05:53.
- ^{xxiii} Farouk Belaabed, Djamel Bousta, *The Role of Start-ups in Achieving Sustainable Development*, *Journal of Law and Political Sciences*, Vol. 09, No. 01, 2023, p. 106.
- ^{xxiv} Farouk Belaabed, Djamel Bousta, previous reference, p. 607.
- ^{xxv} Amal Bousmina, Asmaa Sefari, *Presentation titled: The Role of Start-ups in Serving Sustainable Development Goals*, National Symposium: “The Shift Toward Investment in Start-ups in the Context of the Knowledge Economy as a Strategy for Achieving Sustainable Development”, Faculty of Economic, Commercial, and Management Sciences, University of Oum El Bouaghi, 02–03 November 2022, p. 10.
- ^{xxvi} See: Article (35) of Presidential Decree No. (442-20), dated 30 December 2020, concerning the issuance of the constitutional amendment approved in the referendum of 1 November 2020, *Official Gazette* No. 82.
- ^{xxvii} Youssef Hussein, Ismail Siddiqi, previous reference, p. 75.

- ^{xxviii} Farouk Belaabed, Djamel Bousta, previous reference, p. 627.
- ^{xxix} Cherifa Bouchaour, previous reference, p. 47.
- ^{xxx} Amal Bousmina, Asmaa Sefari, previous reference, p. 12.
- ^{xxxi} Artificial intelligence is defined as: “A science based on mathematical rules, devices, and software incorporated into computer systems that perform numerous tasks and operations simulating human intelligence, differing from it in speed and accuracy in solving complex problems.”
- ^{xxxii} Ferré, J. L., Les start-up: nouvelle économie, nouvel Eldorado ?, 2000, p. 112.
- ^{xxxiii} Ferré, J. L., *ibid.*, p. 110.
- ^{xxxiv} Amal Bousmina, Asmaa Sefari, previous reference, p. 13.
- ^{xxxv} Amal Bousmina, Asmaa Sefari, previous reference, p. 14.
- ^{xxxvi} Farouk Belaabed, Djamel Bousta, previous reference, p. 627.
- ^{xxxvii} Souria Boutrafa, Najwa Nasra, previous reference, pp. 967–984.
- ^{xxxviii} Amal Bousmina, Asmaa Sefari, previous reference, p. 13.
- ^{xxxix} Farouk Belaabed, Djamel Bousta, previous reference, p. 610.
- ^{xl} See website: <https://news.radioalgerie.dz/>, visit date: 06/09/2025, at 07:02.
- ^{xli} Nasser Bouaziz, Mounsef Ben Khadija, The New Economic Model in Algeria – Between Reality and Implementation, *Journal of Economic and Financial Studies*, Issue 10, Part 20, 2017, p. 90.