

Value of IP for health and growth

The economic benefits of
strengthening the environment
for innovation in **Colombia**

SEPTEMBER 2021

An aerial, top-down view of the continent of South America, showing its diverse terrain from lush green rainforests to rugged mountain ranges and coastal regions. The continent is set against a backdrop of the Earth's curvature and the blue oceans.

KEY
FINDINGS

BACKGROUND AND OBJECTIVES

INTERPAT and AFIDRO asked Charles River Associates (CRA) to identify and quantify the economic benefits from strengthening the environment for innovation in Colombia.

The objective of the study is to:

- 1.** Set out the **policy framework** for supporting innovation in Colombia and the current state of innovative activity.
- 2.** Undertake a **case study analysis** on countries, outside the LATAM region, with potential lessons from other countries which may represent an opportunity for Colombia.
- 3.** Develop **scenarios** as to how innovative activity could change in Colombia, if policies adopted in other countries were pursued.

The approach builds on a similar analysis applied to Argentina in 2018, Brazil in 2019 and Mexico in 2020.

COLOMBIA'S INNOVATIVE CAPACITY

1. COLOMBIA'S CURRENT INNOVATION CAPACITY AND POTENTIAL

Colombia has many of the factors required for innovation.

- Colombia has many of the factors required to be successful in encouraging biopharmaceutical innovation: a strong university and education system, with strong human resources, and several policies were implemented or are currently being developed to ensure a strong innovative eco-system.
- The market has also developed a relatively comprehensive IPR framework, a strong healthcare system foundation and several regional innovation clusters.

Indicators show there is room for improvement when compared to other countries in Latin American and OECD countries.

- Despite the number of innovative policies in place, there is limited private and public R&D investment, limited innovative activities by private companies, and limited opportunities for private-public partnerships.
- Lack of long-term commitments on improving the IP environment, including ambiguous implementation of Regulatory Data Protection create uncertainties for the innovative industry and the debate on compulsory licensing.
- Furthermore, Colombia has wide regional and socioeconomic disparities in healthcare access and does not properly leverage its potential for clinical trials.
- Gaps in Colombia's innovation framework have constrained innovative activity in Colombia, especially in terms of lower basic research, clinical trial activity, patent filings and employment.

THE ON-GOING DEBATE

2. ON-GOING DEBATE ON HOW TO IMPROVE INNOVATION POLICY

Colombia has recently published a draft version of the National Intellectual Property Policy and various key innovation policies, such as the Business Plan for the Pharmaceutical Sector. However, these fail to address certain gaps in the innovation environment.

- The Draft National Intellectual Property Policy published in 2021 focuses on supporting the effective use and protection of IP rights to encourage innovation and balance the interests of IP owners and users.¹
- The Colombian government has implemented various policies to encourage growth in the innovation ecosystem – including the **Business Plan for the Pharmaceutical Sector** (2019 – 2032) and the **National Policy for Science, Technology and Innovation**, which is under development.
- The Business Plan for the Pharmaceutical Sector includes objectives to position Colombia to specialize in the production and commercialization of high-quality chemical synthesis supplies and drugs and to enter the biotechnology market, to be competitive within the American continent.^{2,3,4}
- Through the **2020 Entrepreneurship Act**, the CEmprende National Network has been established. This is the largest entrepreneurship and innovation network in Colombia. It aims to facilitate the collaboration between academia, private companies and the State to stimulate entrepreneurship and innovation.
- Our analysis suggests the potential for further mechanisms to unlock the potential value of strong resources in Colombia and incentivise increased economic activity.

THE POTENTIAL TO IMPROVE THE INNOVATIVE ENVIRONMENT: LONG-TERM PLAN

3. IMPLICATIONS FOR COLOMBIA'S INNOVATION AND ECONOMIC POLICY

Developing a long-term plan to strengthen the country's innovation ecosystem.

- The Colombian government lacks a long-term vision which prioritises innovation. Another weakness reflecting shorter-term planning is that institutions such as INVIMA rely on a contract labor force with high turnover.
- There are lessons from the Israeli, Spanish, Singapore and Chinese governments which have been prioritising innovation to achieve long-term growth.

Developing a culture which fosters collaboration

- The development and financial support for initiatives to enhance collaboration between academia with the business sector in innovative projects is important for stimulating and sustaining an innovative environment. Short term initiatives such as Colombia Cientifica and the Pact for Innovation and the Pact for growth and job creation in the pharmaceutical sector have begun to address this, however further medium and long term initiatives are needed. There could be opportunities for the National Department for Planning to develop and engage in initiatives supporting greater academic and industry collaboration.
- There are lessons from Singapore and China in terms of increasing public and private sector collaboration to develop innovative products, which has in turn increased the level of private investment.

THE POTENTIAL TO IMPROVE THE INNOVATIVE ENVIRONMENT: HEALTHCARE SYSTEM AND COMMUNICATION

3. IMPLICATIONS FOR COLOMBIA'S INNOVATION AND ECONOMIC POLICY

Ensuring the healthcare system acts as a backbone for clinical trials.

- Colombia aims to improve the national healthcare standards by reducing healthcare inequalities across regions and patient sub-populations. Despite significant improvements in Colombia's healthcare system infrastructure over the past two decades, it is estimated that 15% of the population remains uninsured; benefit plans under the contributory regime and the subsidized regime still differ and there are deficiencies in the quality of care as not all public hospitals are modernized.⁵
- Ensuring consistent access to healthcare and clinical trials may result in Colombia being a more attractive place to conduct clinical trials. In addition, reducing existing regulatory barriers to conducting clinical trials will be important in attracting investment and research to Colombia.
- Both Israel and Spain provide examples of how to improve the clinical trial environment.

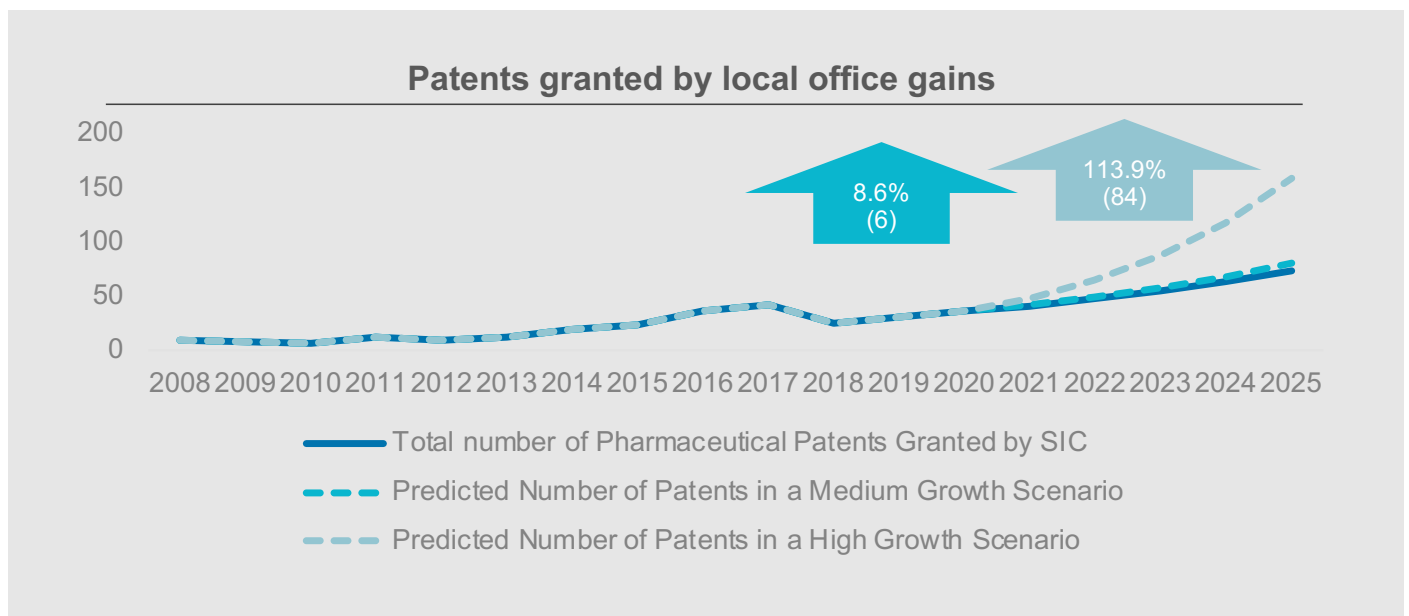
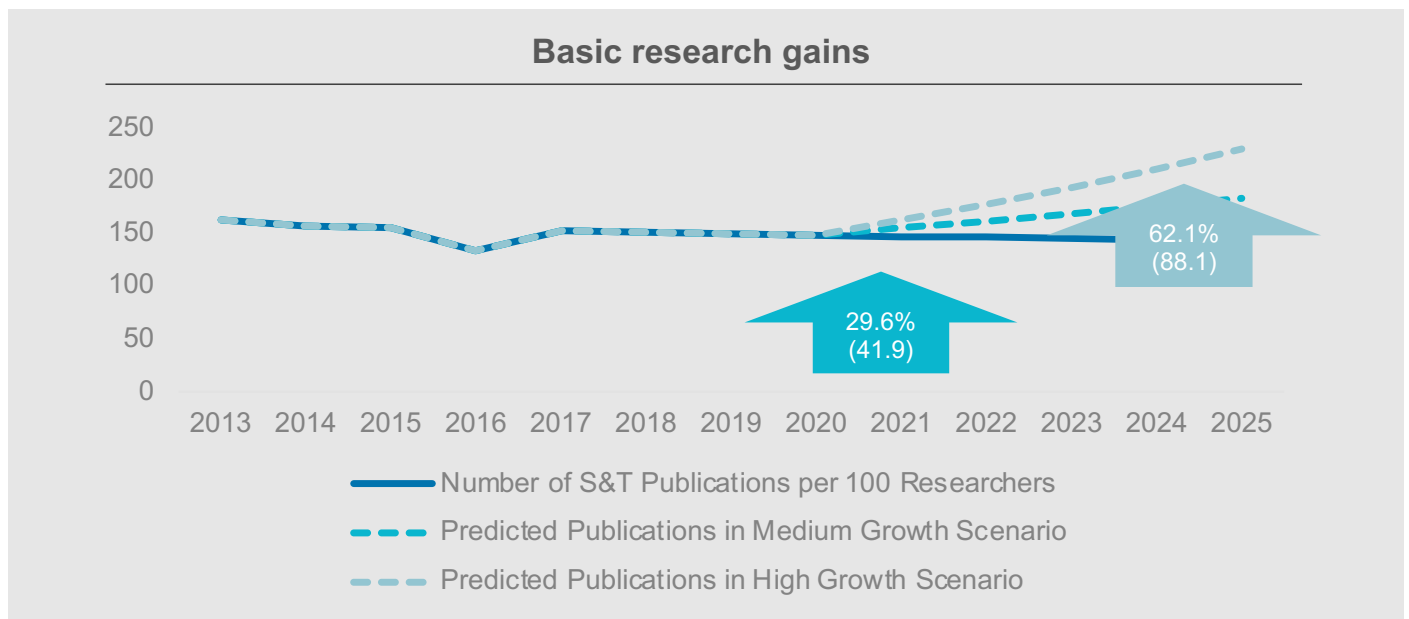
THE POTENTIAL TO IMPROVE THE INNOVATIVE ENVIRONMENT: IP

3. IMPLICATIONS FOR COLOMBIA'S INNOVATION AND ECONOMIC POLICY

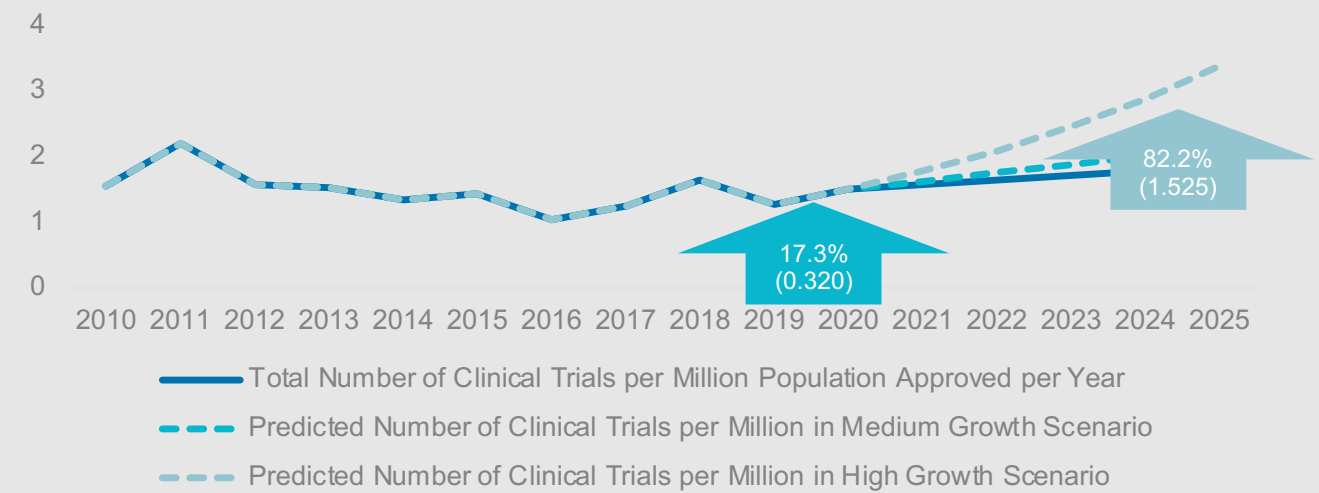
Long term commitment to strengthening the IP regime.

- Development of educational programs to strengthen understanding of the benefits of and consistent interpretation of IP legislation across public institutes, regulatory and governmental bodies is likely to lead to long term benefits for the IP and innovation environment in Colombia.
- At the moment, the communication between INVIMA, the Patent Office and industry is a barrier to innovation, and past efforts to increase communication between INVIMA and the Patent Office were unsuccessful as the agencies asserted independence. If such communication is encouraged, the IP regime would be strengthened, and Colombia would benefit from greater innovation activity.
- Improved communication between the regulatory authority (INVIMA) and the Patent Office to develop and implement strong patent linkage mechanisms, whilst ensuring that the timelines for litigation are kept to a minimum through an efficient patent enforcement process.
- In addition, providing RDP consistently is also likely to strengthen the IP system and attract further innovation and investment.
- There are useful examples from successful IP educational programs have been implemented by Singapore and Israel; policies to enhance RDP in Japan or Israel; learnings from South Korea on patent linkage.

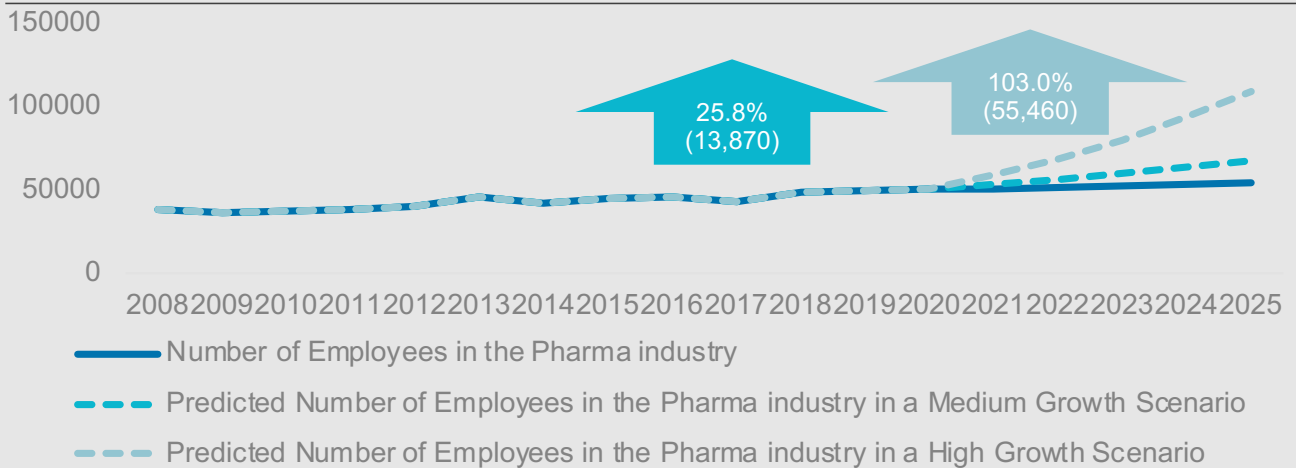
QUANTIFYING THE POTENTIAL BENEFIT - CREATING AN INFLECTION POINT



Clinical trials gains



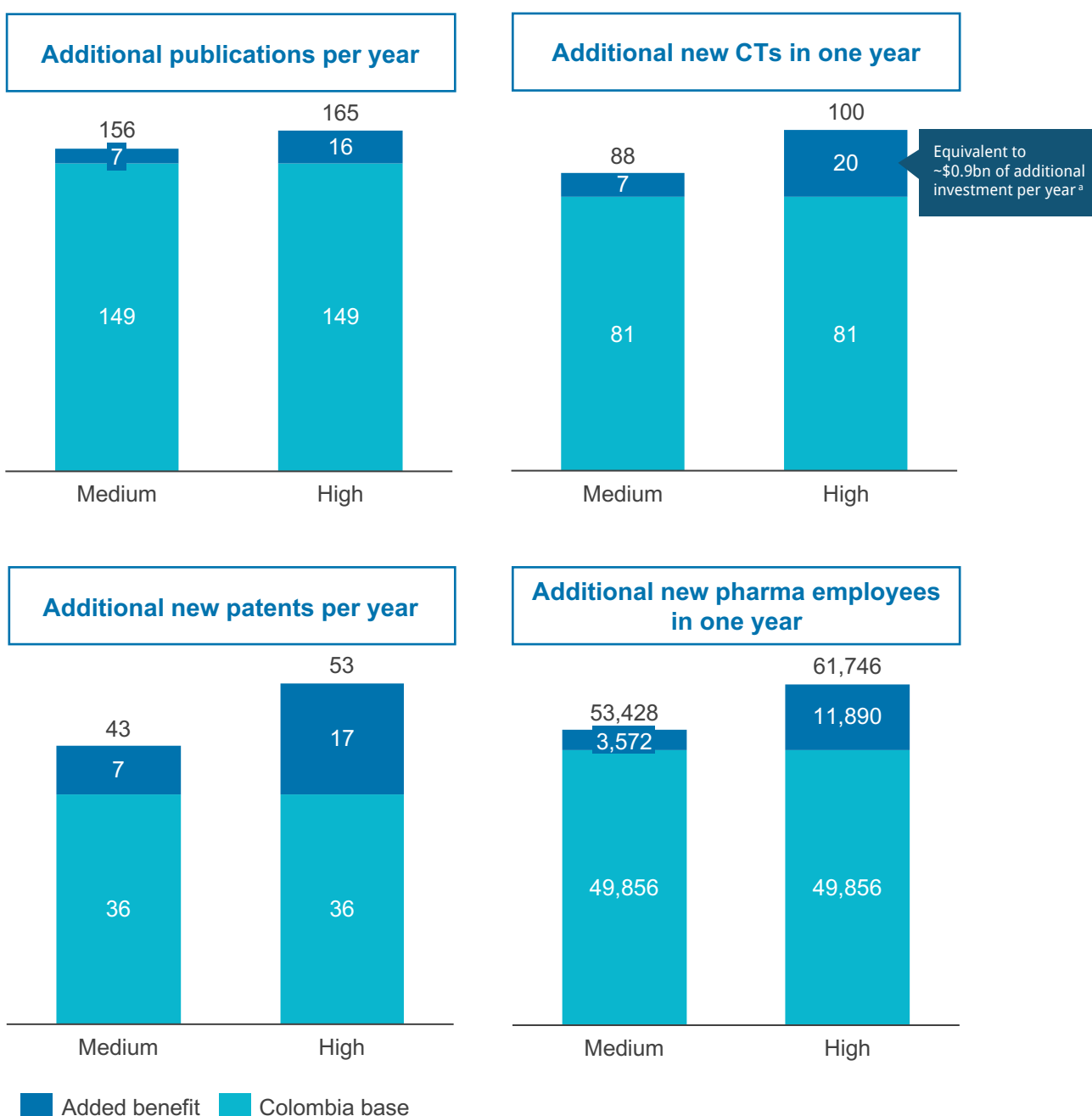
Employment in pharma gains



QUANTIFYING THE POTENTIAL BENEFIT – DELIVERING REAL GAINS

Drawing from the findings in the analysis, strengthening the IP environment in Colombia would lead to:

- **Significant gains** in areas such as patents granted (with the most direct impact from IP rules) and employment (with most direct impact from improvement in innovation policies).
- **Moderate gains** in areas such as biological publications (are expected to be indirectly impacted by IP and Innovation regime changes) and in clinical trials (that are strongly impacted by the level of protection of data generated).



^a Note: The cost of CT development in Colombia is estimated to be 10-35% lower than the costs in the US.



The Colombian coffee Region, Colombia, shutterstock.com/Javier Crespo.



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A rectangular box with a white border and a solid magenta background. The word 'BARCODE' is centered within the box in a white, bold, sans-serif font.

BARCODE