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# EX.

"Industrial Environment Changes in COLOMBIA"

Universidad El Bosque

> innovación Educación eXtensión

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Por una cultura de la innovación

#### About us:



- Bosque University Private Colombian University/Bogota-Colombia
- HUB iEX Innovation CEmprende Government National Project
- Strategic connection with the Innovation Ecosystem (Public and Private)
- Monitoring Industrial opportunities and needs to connect with local, regional and international R&D capacities
- Regional contact Latin America KAIST GCC



# **Topics**

- 1. COVID-19 Current Situation in Colombia
- 2. How things are changing in terms of industry in Colombia?
- 3. Technology and Investment Changes
- 4. Innovation Ecosystem and Technology Transfer
- 5. Forecasting Business Opportunities
- 6. Final Remarks



#### 1. COVID-19 - Current Situation in Colombia

- a) The national economy decreased more than 7% in the first semester of 2020
- b) The three economic activities more affected as consequence of the pandemic restrictions are: **COMMERCE, MANUFACTURE INDUSTRIES, AND CONSTRUCTION**
- c) In February 2020, before the pandemic in Colombia, the industrial production reflected an increased of mor thant 4.5 %
- d) Before the pandemic in Colombia, 28 of the 39 industrial sectors reflected a relevant economic increase.
- e) In June 2020, 30 of the 39 industrial sectors in Colombia, reflected a negative economic impact in comparison the same period in 2019

Source: National Administrative Department of Statistics (Colombia):



# 2. How things are changing in terms of industry in Colombia?

- All the actors of industrial sectors are adapting and adjusting to the new context.
- Digital transformation has been the big challenge for all sectors.
- Actitivies of R&D has been focused to solve technical problems during pandemic and post-pandemic.
- Companies and Universities are exploring together opportunities to codevelop tecnological products.
- The priorities of the industrial sectores also are changing according to the new context and opportunities.



### 3. Technology and Investment Changes



- The companies and entrepreneurships are adapting their business models to the 4th Industrial Revolution.
- The public sector requires a rapid digital transformation
- Artificial Intelligence, Blockchain, Big Data, Cloud Computing has being considered key elements in the new context.
- The technological trends in Colombia has been changed because of the pandemic.
- High demand of technological devices, tools, and digital platforms for education, entertainment, working connectivity, banking services, healthcare, digital information security.



## 4. Innovation Ecosystem and Technology Transfer

- The innovation ecosystem is very active through dynamic relationshipts among public entities, companies, and private sector.
- The public funds for R&D has been focused to solve problematics caused by the pandemic.
- Some technological trends expected for the Colombian context 2021 are: digital platforms for teleworking; virtual events; e-commerce palatforms and banking services; health services platforms; Artificial Intelligence (AI) developments, Internet of things (IoT), Robotics, data security and cyber; security, computer simulation, and blockchain.







- In the last 5 years, Colombia has been the 3rd major receptor of foreing investment in the Region after Brasil and Mexico.
- Colombia is the 4th economy in the Region with more facilities to make business.
- With regards protection to the investor, Colombia has the first place in the region according to the Doing Business guide of the World Bank.
- The Agriculture and Technology sector are considered as source of economic opportunities after pandemic in Colombia.





### 6. Business keeps going on in Colombia:

- Although the pandemic, Colombia keeps being an interesting destiny of Foreign Investment and business, mainly for the export capacities of the country in the Region, the tax incentives and the skilled labor force.
- 45 new projects of Foreing Investment promoted by ProColombia during January-April, 2020, with contribution in TECHNOLOGY, TECHNOLOGY TRANSFER AND DEVELOPMENT in 9 Colombian regiones: Bogota, Antioquia, Bolivar, Tolima, Valle, Atlantico, Cundinamarca, Risaralda and, Magdalena.
- According to the Central Bank of Colombia, between January to April, 2020, the Direct Foreing Investment in Colombia was over US 3.500 millions (more in comparsion with the same period in 2019)
- The agricultural industry, manufactures and services are the industrial sectors with more investiment during the firs semestre of 2020.







Industrial, Technology and Tech Transfer Opportunities in Colombia:

- Technology demand of public and private sector.
- Main sectors of technology demand: health, education, agriculture, healthcare, banking services, entertainment, working connectivity.
- Innovation Ecosystem: Public entities for promotion, public funds, universities, companies.
- R&D offer and demand
- Interest in technology transfer: public and private sector







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