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This report provides an outlook to the education sector in Colombia, including information about the educational system, higher education and academic research, education & science policy and opportunities for collaboration for Finnish actors.

Many challenges remain in access to education and equality in education opportunities, but there is political will for making improvements in this sector by the current government. This provides several opportunities for foreign institutions and organizations to contribute and collaborate for innovative solutions.

These opportunities are both at the university and research level as well as on business level in education technology solutions, teacher training, consultancy processes, vocational education and training, early childhood education, sustainable education solutions, degree students-market, Talent Boost and education sector development cooperation/system level exchange.

Brief context on Colombia

Colombia is an upper middle-income economy (IMF) the fourth-largest economy in Latin America (after Brazil, Mexico, and Argentina), and the third-largest population with over 51 million inhabitants (2022 est). With a rather young population –40% is younger than 25 and the median age is 31.2 years (Finland 43.6) – the country is under a demographic transition with declines in fertility, mortality, and population growth rates.

The country led regional economic recovery after the pandemic with strong growth in GDP, household consumption, and employment in 2021 and 2022. However, global economic pressures and uncertainty have resulted in high inflation and interest rates, currency devaluation, and slower economic growth projected for 2023. According to EIU, the growth prediction rate of 1.6% for 2023 is still significantly higher than that of the US (1%) and close to the world average of 2%.

Economic growth alone has not been sufficient to reduce inequality and Colombia remains a highly unequal country as barriers to economic opportunities persist limiting socioeconomic mobility, this is evident in education, since big differences exist between private and public education with most middle

class and up opting for private education for all levels. Even though there are still challenges, access to education has improved significantly in recent years in Colombia. The country has made progress in expanding primary and secondary school enrollment rates, reducing illiteracy, and increasing access to higher education.

Like many countries, Colombia faced disruptions in education due to the pandemic. Schools shifted to remote learning, highlighting challenges in access to technology, the digital divide, and the need for robust distance learning infrastructure.

Several social reforms are taking place under Gustavo Petro's government aiming to reduce inequality and improving the quality of life. Education is an important aspect of the government plan for the 2022-2026 period. The government budget for education in 2023 is 11.8% bigger than it was for 2022, reaching a value of approx. EUR 11B and maintaining its position as the biggest sector for government spending. According to the Ministry of Education, the main objective is to strengthen the education system mainly by improving infrastructure and education quality (especially in remote territories), promoting teacher training, and investing in higher education.

The overall literacy rate measured by UNESCO is 95.64% (2020) lower than Europe's average of 98.5%, but the youth literacy is at stable 99%. Enrollment in tertiary education stands at a 50.1% while Europe's measure is 62%.

Colombia has one of the lowest shares of tertiary-educated adults (23% in 2019) according to the OECD, even though adults with tertiary degree earn twice as much as their peers with only upper secondary education. The majority of the employed population only has a baccalaureate (basic secondary level of education). Colombia's informality rate remains high at over 58% of total employment (DANE), and most likely many without higher education are engaging in informal labor.

Colombia actively engages in international cooperation in the education sector. Collaborations with foreign institutions and organizations contribute to knowledge exchange, research opportunities, and educational innovation.

The educational system in Colombia

The Colombian Constitution mandates the guarantee of adequate education coverage and conditions for minors' access and continuity in the educational system. While education can be provided by public or private institutions, the Ministry of Education regulates it under the general education law (Ley general de Educación).

The educational system consists of the following five levels:

0. **Inicial:** Initial education for children aged 3-5 years.
1. **Preescolar:** Preschool education, which is compulsory for one year starting at age 5 (in kindergarten).
2. **Básica:** Basic education, comprising five years of primary education and four years of secondary education, from ages 6 to 15.
3. **Media:** Upper Secondary education, which lasts for two years (compulsory) and corresponds to high school. Students can choose between technical high school and academic high school.
4. **Superior:** Higher education, which starts from age 18 and beyond.

In the public education system, Colombians can expect to undergo 12 years of education between the ages of 5 and 17, which is shorter than the OECD average of 18 years. However, students in the private system in Colombia usually have a duration of 18 years of education. (Refer to Appendix 1 for a diagram of the education system in Colombia). IB schools can offer an additional year of studies for Upper secondary education (grade 12).

Compulsory basic education encompasses primary and secondary education and spans eleven grades (equivalent to 11 years). Basic education is provided free of charge in public schools up to the secondary level. The curriculum is not set at the national level, granting institutions flexibility in determining what and how they teach their students. To graduate from upper secondary education (Media), students must pass the state exam known as "Saber 11," administered by the Colombian Evaluation Institute for Education (ICFES).

After completing upper secondary education, students apply for higher education based on their Saber 11 test results. The test results often determine the universities and programs to which students can apply, as they must meet the "test score threshold" set by the university. Additionally, universities may have their own entrance requirements, such as entrance exams, aptitude tests and language tests. State exams also exist for graduates from higher education institutions, namely SaberPro (for universities) and SaberTyt (for technical and technological schools similar to VET).

Colombia's diverse geography presents varying challenges in accessing education. In some areas, students face issues such as inadequate facilities, a lack of internet access (especially in rural areas), and schools being far from their homes. Approximately 50% of students in rural areas do not complete upper secondary education (Media). It is worth noting that the conditions differ significantly between urban and rural areas, with urban areas generally having better infrastructure and easier access to education. However, considerable challenges persist. For example, by the end of 2022, 55% of public education institutions lacked drinking water, 11% had intermittent electricity, 60% had no internet access, and 47% had unpaved driveways, among other issues.

The organization of educational institutions and the degree system in Colombia can be complex to understand, as standardization is not uniform across the country. Indigenous villages in Colombia, for example, often have their own types of schools, where their own cosmovision has been taken into account in their pedagogical projects and school management practices. It is essential to consider the diversity and challenges within the Colombian educational system when exploring collaboration opportunities. This understanding can inform efforts to address specific needs and contribute effectively to education development in Colombia.

The latest 2018 OECD Programme for International Student Assessment (PISA), a standardised test for secondary students, reflects relatively low learning outcomes for Colombia compared to other nations. The country ranked second to last among 37 OECD countries, behind Mexico and Chile. This low-ranking is due to inadequate facilities, the location of schools, lack of internet access and low salaries for teachers, which affects general respect for educators.

Public & private education

a) in schools

There are both public and private educational institutions at all levels of education in Colombia. While more than 70% of the country's nearly 14,000 schools are public, middle and upper-income families often opt for private education due to perceived higher quality and language skills. However, within the public system, there exists a coverage and educational gap between schools in urban and rural areas. The government has initiated programs to address this challenge, including teacher training and the implementation of technology-based solutions.

Private schools play a significant role in the Colombian education system, offering a wide variety of institutions with varying standards, entry requirements, and fees. Many private educational institutions, mostly in urban areas and major cities in the country are bilingual, providing instruction in English and sometimes in other languages. International schools are also present across the country, offering globally recognized qualifications such as the International Baccalaureate (IB). However, tuition fees for IB schools are often expensive by local Colombian standards.

According to the Sapiens Research 2022 ranking, out of the 194 best K-12 schools listed in Colombia, 191 were private schools. This disparity means that students from a private education background have better access to university education compared to those from the public education system. Thus, despite basic education being free of charge, the system perpetuates inequality. Moreover, children from poorer families tend to have lower school attendance rates compared to children from wealthier families.

The school year generally starts in January and ends in November for public schools and private schools (known as “calendario A”), while some private schools or regions of the country may follow a different academic calendar, beginning in August or September and ending in June (known as “calendario B”).

b) in HEI institutions

Both public and private higher education institutions exist in Colombia, and their costs vary. Public universities generally have lower tuition fees, typically less than USD \$1000 per semester. Private universities, on the other hand, range from USD \$1000 to \$5500 or more per semester, with doctoral programs being the most expensive. For reference, the monthly legal minimum wage for 2023 in Colombia is USD \$300 approx. The fee for each semester in public universities is determined based on the socio-economic status of the student and their family.

It is crucial to address the accessibility and affordability challenges in higher education. Efforts to expand scholarships are needed, as well as financial aid programs, and grants to ensure that deserving students can pursue higher education regardless of their socio-economic background.

Public universities in Colombia, such as Universidad Nacional de Colombia, Universidad de Antioquia, Universidad del Valle, and Universidad Industrial de Santander have traditionally played a significant role in academic research. They often receive government funding and have a strong research infrastructure, allowing them to conduct a substantial amount of research across various disciplines. Private universities such as Universidad de los Andes, Pontificia Universidad Javeriana, Universidad del Rosario, Universidad del Norte, EAFIT, Icesi, and Universidad de La Sabana contribute significantly to academic research as well. These institutions often rely on a combination of funding sources, including tuition fees, donations, and research grants, to support their research activities. Public universities tend to have a larger research output due to their historical prominence, larger student populations, and greater access to public funding.

Teachers

An important aspect that affects the quality of education outcomes in Colombia is the admission process for teaching careers. Applicants to teaching programs often have lower performance in the Saber 11 tests compared to those applying for other careers such as engineering or economics. This discrepancy results in fewer outstanding graduates pursuing a teaching career. The Ministry of Education in Colombia has implemented teacher evaluation systems to assess and monitor the performance of educators. These evaluations aim to improve teaching quality, identify areas for professional development, and provide feedback to support teacher growth. Becoming a teacher as a career path is not usually the first choice for students applying to higher education programs and the social recognition of the teacher profession is not high.

Significant regional differences exist in the academic qualifications of teachers at all levels of education. Major cities like Bogotá and Medellín tend to have a larger proportion of teachers with higher academic levels.

The academic qualifications required to teach in Colombian schools is determined by the teaching level. Elementary and preschool teachers can complete a teacher training program at dedicated teacher training schools (escuelas normales superiores), whereas secondary school teachers must have an undergraduate degree from a university-level institution. That said, Colombia is attempting to upgrade

the qualifications profile of its teachers. Elementary teachers in some departments must now have a university-level degree as well. Teachers with other types of degrees can complete their qualifications with graduate studies or non-formal studies in pedagogy as part of their professional teacher development process.

In 2017, the average number of students per teacher in K-12 was 26.2. The average age of a Colombian teacher was 47.4 years (OECD 43 years). It is noteworthy to mention that 91.9% of teachers had a professional degree and 41.1% had graduate degrees. The more qualified and graduate degrees the teacher has the higher their salary will be; an incentive which has led to teachers eagerly seeking at least a master's degree. Some city secretariats, such as Bogotá, are even financing the graduate studies of their teachers as an additional support measure for teacher professional development.

To enhance teacher competence and promote ongoing professional growth, Colombia has implemented programs for continuing professional development. These programs provide teachers with opportunities to update their knowledge, improve instructional techniques, and stay abreast of educational innovations.

K-12 teachers in Colombia are represented by various teacher unions, such as the Colombian Federation of Education Workers (FECODE). These unions advocate for teachers' rights, negotiate working conditions, and play a role in shaping education policies.

Early childhood education

In 2019, only 64% of Colombian children aged 3 to 5 were enrolled in early childhood education (ECE), which falls below the OECD average of 87%. This indicates a significant gap in access to ECE opportunities for young Colombians. Furthermore, the student-teacher ratio in ECE facilities was alarming, with 33 children per one teacher. This ratio is almost three times higher than the OECD average and ranks as the highest among OECD countries.

The responsibility for early childhood education lies with the Colombian Institute of Family Wellbeing (Instituto Colombiano de Bienestar Familiar, ICBF) and the Ministry of Education. The ICBF plays a crucial role in ensuring the provision of quality ECE services and implementing initiatives to address the challenges faced in this sector. Collaborative efforts between the ICBF, educational institutions, and the government are essential for developing effective strategies and policies that support early childhood education in the country.

International collaborations and knowledge-sharing initiatives with other countries that have achieved success in early childhood education can provide valuable insights for Colombia. In addition to investment, it is worth considering the importance of curriculum development and teacher training in improving the quality of ECE in Colombia.

Higher education

As of 2021, only 31% of 25-34 year-olds in Colombia possessed a higher education qualification, which is lower than the OECD average of 47%. This disparity highlights the need for increased access to higher education in Colombia.

The higher education system in Colombia encompasses technical institutes, technological universities, and academic universities. Most of these institutions align with government programs, with the exception of those affiliated with religious organizations. The academic strata within higher education include undergraduate degrees, graduate programs such as specialization (certificates), master's degrees, and doctorates (refer to Appendix 1, Diagram).

In addition to tertiary education, vocational and technical education plays a significant role in Colombia's education system. These programs aim to provide practical skills and training for students, contributing to workforce development and reducing youth unemployment, SENA having a huge role in this type of education.

Higher education in Colombia serves three primary functions: academic education, research production, and social projection (the application of knowledge). These functions collectively contribute to the advancement of knowledge, innovation, and the overall development of society.

a) Higher education institutions and their differences

There are almost 300 higher education institutions in Colombia and many various types of higher education institutions that cater to different educational needs and career paths. Technical institutions offer VET programs: "técnico" (technician) and "tecnólogo" (technologist) degrees. Students can graduate from these institutions to acquire degrees that are more practical in nature. Technical degrees provide specialized skills and training for specific vocational fields. Some university-level institutions also offer these technical degrees.

Professional technical institutes (Instituciones técnicas profesionales). These institutes provide practical and operational programs with a strong emphasis on technical and vocational fields. The programs typically last for two years and equip students with the necessary skills for their chosen professions. While there is no direct equivalent in Finland, these programs can be seen as comparable to vocational education.

Technological institutions (Instituciones tecnológicas). These institutions offer undergraduate programs in technology and related fields. The programs typically last for three years and provide a higher level of technical knowledge and specialization. The equivalent in Finland would be a University of Applied Sciences, which offers study programs in various technological fields.

University institutes or technological school institutes (Instituciones universitarias or escuelas tecnológicas). These institutions are similar to universities in Finland and provide bachelors', masters', and postgraduate programs. They offer a wide range of academic disciplines and provide comprehensive education at the university level.

Regional centres of higher education (CERES, or Centros Regionales de Educacion Superior): These institutions are formed in the areas where there is no or limited access to higher education institutions. In Colombia, there are many regional centers of higher education offering a wide range of post-secondary courses as per the regional needs. All academic programs offered in these Regional Centers must have the Qualified Registry granted by the Ministry of National Education.

Centers for vocational training managed by National Apprenticeship Service (SENA, or Servicio Nacional de Aprendizaje): SENA plays a vital role in vocational and apprenticeship programs in Colombia. It offers free education and has extensive infrastructure throughout the country. SENA focuses on providing training for professional technologists and technicians and is managed by the Ministry of Labor. It serves as an important educational institution, especially in areas where access to education is limited.

SENA is Colombia's largest vocational training institution and South America's 2nd largest in terms of the number of training places and qualifications. In 2023 the institution has 117 training centers, over 3,000 training venues and 180 mobile classrooms.

In addition to the above there are some **post-secondary distance education institutions**, offering virtual education as well as some **special regime institutions (instituciones de regimen especial)**, which are military institutions offering higher education.

Academic programs are divided into Undergraduate (Pregrado) and Graduate (Posgrado). Undergraduate studies culminate to Licentiate/Professional degree (Licenciado or Profesional) which is equivalent to Bachelor's degree in Finland. The largest education community in Colombia is the "Universidad Nacional," a public institution that accommodates more than 50,000 students.

A current challenge in Colombia is to create more flexible educational paths that allow for lifelong learning, and avoid limitations based on previous study choices where the system may have dead ends. Currently, students who complete professional degrees in technical or technological fields may face a barrier to further study, as usually, only students with a bachelor's degree from a university are eligible to pursue master's or other advanced studies. Addressing this challenge involves exploring pathways that enable seamless progression and opportunities for further education for all students.

b) Academic research

Academic research in Colombia encompasses a diverse range of disciplines and fields, with several key areas of focus. Research priorities can vary across institutions and over time, some notable areas that have received attention in Colombian academic research lately are:

- a) **Biodiversity and Conservation;** Colombia is known for its exceptional biodiversity, and research efforts are often dedicated to studying and preserving the country's rich ecosystems, including its rainforests, coral reefs, and unique flora and fauna.
- b) **Peace and Conflict Studies;** Given Colombia's history of internal armed conflict, research on peacebuilding, conflict resolution, and post-conflict transformation has been a significant focus. Scholars examine various dimensions of the conflict, transitional justice, human rights, and the challenges of building a sustainable peace.
- c) **Social Sciences and Humanities;** Research in social sciences and humanities addresses a wide range of societal issues, including inequality, poverty, education, cultural heritage, identity, and urban development.
- d) **Health and Biomedical Sciences;** Research in health and biomedical sciences aims to improve public health, tackle disease burden, and develop innovative medical interventions. Areas of focus include infectious diseases, tropical medicine, epidemiology, genetics, and health systems strengthening.
- e) **Sustainable Development and Environmental Sciences;** Colombia's commitment to sustainable development drives research efforts in areas such as renewable energy, climate change mitigation and adaptation, sustainable agriculture, natural resource management, and environmental policy.
- f) **Science, Technology, Engineering, and Mathematics (STEM);** Research in STEM fields encompasses diverse disciplines, including engineering, physics, chemistry, biology, and computer science. Colombian researchers contribute to advancements in fields like nanotechnology, robotics, materials science, and computational modeling.
- g) **Cultural Heritage and Archaeology;** Colombia's rich cultural heritage and archaeological sites inspire research on pre-Columbian civilizations, indigenous cultures, colonial history, and cultural preservation. Archaeologists and anthropologists study ancient artifacts, conduct excavations, and explore the country's cultural roots.

The local industry in the region might also have an impact the kind of academic research carried out in the regional universities.

Quality of education in HEI

a) Rankings

Accreditations and rankings hold significant importance in Colombia, with close attention paid to them. A decline in rankings is taken seriously, as it may result in institutions becoming less attractive to top candidates and investors for universities. As for K-12 institutions national or international accreditations will allow private schools to charge more for tuition fees and rankings are taken seriously by families or caretakers when choosing a school.

In the QS World University rankings of 2024, University de los Andes ranked highest at 198th position, Universidad Nacional at 226th and Pontificia Universidad Javeriana 347th (refer to Appendix 2 for the full list). From Finnish Universities Aalto University scored highest at 109th, University of Helsinki 115th and University of Oulu 313th.

According to Times Higher Education Ranking the best universities 2023 in Colombia are Icesi University which is at the rank 601-800th and Pontificia Javeriana University which is at the rank 801-1000th in the academic ranking of world universities. For comparison, University of Helsinki is 110th and Aalto University 201-250th. THE ranked both University National and University de los Andes at 1001-1200th.

In the QS Latin America University Rankings 2023, 57 universities in Colombia were ranked within the regions' top 400. Universidad de los Andes, Universidad Nacional and Universidad de Antioquia are among the top 15 in the region.

These rankings offer valuable insights into the standing of Colombian universities on the global stage. It is important to note that rankings can vary based on the methodology employed by each organization, and universities may excel in specific fields or disciplines. The rankings should be considered alongside other factors such as academic programs, research opportunities, faculty expertise, and student satisfaction when evaluating higher education institutions in Colombia.

b) Quality Assurance and Accreditation

All private and public higher education institutions in Colombia are regulated by the Ministry of Education and undergo periodic quality assurance processes. Before they can begin to enroll students, all new HEIs in Colombia, public or private, must obtain a license from the MEN (Ministry of Education) and comply with certain minimum requirements in terms of infrastructure and financial resources. In addition, all degree programs must be evaluated and obtain a registro calificado (qualified register) based on the recommendation of the Comisión Nacional Intersectorial de Aseguramiento de la Calidad de la Educación Superior (CONACES). Programs that fail to obtain sufficient registration cannot be offered. Programs are usually certified for seven years, after which they are re-evaluated.

In addition to the mandatory certification, there is a more rigorous voluntary accreditation process for both academic programs and institutions under the purview of the Consejo Nacional de Acreditación (CAN). Accreditation is based on the evaluation of self-assessments, peer review, and on-site inspections. The CAN takes into consideration criteria like mission statements, admissions requirements, faculty qualifications, student assessment systems, internal quality assurance mechanisms, infrastructure, funding, and an institution's commitment to research. Depending on the type and quality of the program or institution, accreditation is granted from anywhere between 4 and 10 years, after which a re-evaluation by CAN is necessary. HEIs with institutional accreditation do not need to apply for a registro calificado when establishing new programs. Information on the approval and accreditation status of programs and institutions is provided by the Sistema Nacional de Información de la Educación Superior (SNIES). It should also be noted that since accreditation is voluntary, the lack of it does not necessarily indicate poor institutional or program quality.

Education and science policy

a) National development plan 2022-2026

Education is the biggest sector for government spending: the government budget 2023 for education increased 11.8% from 2022. Quality education is recognized as a key factor in addressing inequality. The main objective of the government's National Development Plan for 2022-2026 is to strengthen the education system by improving infrastructure and education quality, particularly in remote areas. The plan also emphasizes teacher training and investments in higher education. The Ministry of Education has expressed interest in learning from Finnish teacher training practices and educational infrastructure.

The National Development Plan 2022-2026 outlines significant transformations planned for the education sector. The plan focuses on ensuring the right to quality education for all Colombians through seven strategic lines:

1. Increasing coverage of early childhood education within the framework of comprehensive care.
2. Rethinking the school day to promote comprehensive training and education in citizenship, reconciliation, socio-emotional development, anti-racism, and climate change.
3. Increasing resources from the General System of Participations and other national and territorial funding sources to guarantee quality preschool, basic, and secondary education.
4. Enhancing the dignity and well-being of teachers as agents of change.
5. Strengthening public higher education institutions through the reform of Law 30 of 1992 to ensure the right to higher education.
6. Gradually advancing towards free enrollment in public higher education, focusing on quality, equity, and territorial relevance.
7. Developing a New Plan for Educational Spaces as centers of community life and peace to promote territorial equity and address historical gaps in access to education from preschool to higher education.

In line with the National Development Plan, the Minister of Education announced the launch of the Program for Immediate Transit to Higher Education (PTIES). This program aims to facilitate and promote access to higher education for young people from rural and dispersed rural territories.

Education policy is set by the Ministry at the national level, while its implementation is the responsibility of each department and municipality at the local level. This means that local authorities have significant power in organizing education in their territories and managing available resources, which can sometimes exacerbate existing inequalities. For example, the recent Mayor's office in Bogotá has made significant efforts during its term to improve infrastructure, accessibility, and the quality of education for children in the municipality (with the term ending in the last quarter of 2023).

b) Funding sources

According to UNESCO (2021), the central government of Colombia covers 91 percent of the financing for the public education system by redistributing funding sources to local governments. The primary mechanism for these transfers is the Sistema General de Participaciones (General Participation System – SGP), which accounts for approximately 65 percent of total education spending. The SGP funds are sourced from tax and non-tax revenues collected by the central government and are primarily allocated to certified territorial entities. These entities have the responsibility of administering the education

provision within their respective jurisdictions. The amount transferred to each entity is determined using established formulas that consider performance-based components, thereby allocating more funds to higher-performing regions. Additionally, there are national rules in place that establish teacher salaries across all schools.

Furthermore, there is a separate SGP fund specifically designated for the School Feeding Program (Programa de Alimentación Escolar - PAE). This fund aims to finance school meals and ensure that students have access to nutritious food during their education.

In addition to the SGP, Colombia has the Fondo de Educación Gratuito (Free Education Fund). This fund provides a small financial allocation from the central government directly to schools, which is then administered and spent by school principals to support the operational needs of their respective school networks.

Colombia has scholarship programs available for studying in its own technical schools and universities at different degree levels. These scholarships are granted by various organizations and institutions, such as ICETEX, Colciencias and SENA, please see the more detailed list in Appendix 3.

c) The roles of the Ministries

In addition to the National Ministry of Education, Colombia has the Ministry of Technology, Science and Innovation, which was established in 2021 to oversee and govern the technology and innovation sector in the country. The Ministry's primary objectives are to build capacities, promote scientific and technological knowledge, contribute to national development and growth, and address future technological challenges. Its mission is to enhance the well-being of Colombians by fostering a more productive and competitive economy and a more equitable society through the application of technology, science, and innovation. The Ministry of Science also operates a scholarship program aimed at promoting scientific research and development.

The Ministry of Education, on the other hand, plays a crucial role in the education system and is further divided into two viceministries: the Viceministry for Preschool, Basic, and Secondary Education, and the Viceministry for Higher Education. The Viceministry for Preschool, Basic, and Secondary Education focuses on the development and improvement of early childhood education, primary education, and secondary education in the country. It works towards ensuring access to quality education at these levels and promoting comprehensive educational programs.

The Viceministry for Higher Education, as the name suggests, is responsible for overseeing higher education in Colombia. This includes the regulation and development of universities, academic programs, and policies related to higher education. The Viceministry works towards expanding access to higher education, improving the quality of educational programs, and fostering a conducive environment for research and innovation within universities.

It is also worth noting that the Ministry of Labor plays a role in the Colombian education system, particularly in the management and regulation of vocational and technical education programs. The Ministry of Labor is responsible for ensuring the alignment of these programs with the needs of the labor market, promoting skill development, and reducing youth unemployment through vocational training initiatives. SENA - Servicio Nacional de Aprendizaje - provides VET all over the country and its role and importance has been mentioned before in this report.

d) Secretariats of education

In Colombia's decentralized education system, the responsibility for guiding and ensuring the achievement of educational goals lies with approximately 100 secretariats of education. These secretariats operate at the local government level and play a vital role in overseeing education within their respective jurisdictions.

The secretariats of education have significant autonomy and authority, including control over their own budgets and the ability to develop and implement education-related projects and initiatives. This decentralization allows for greater flexibility in addressing the unique needs and challenges of each locality.

Notably, the secretariats of education in major cities such as Bogotá, Medellín/Antioquia, Barranquilla, and Cali hold substantial influence and decision-making power. These influential secretariats often have access to substantial resources and play a key role in shaping educational policies and practices within their regions.

Additionally, the secretariats of education collaborate closely with the national Ministry of Education to align local initiatives with broader educational strategies and policies. This coordination helps ensure coherence and consistency in the overall education system of Colombia.

The secretariats of education are responsible for a wide range of tasks, including curriculum implementation, teacher hiring and training, infrastructure development, and monitoring educational quality. They also work closely with schools, teachers, parents, and other stakeholders to promote educational excellence and address local educational challenges.

Through their localized approach and decision-making power, the secretariats of education contribute to the overall improvement and development of education at the regional and municipal levels in Colombia.

Studying abroad

If a Colombian student plans to study abroad, they have several popular destinations to choose from, including the United States, Spain, Mexico, Argentina, and Brazil. These countries have been traditionally preferred by Colombian students seeking international education opportunities.

Many Colombian universities have established partnerships with educational institutions in the United States, creating a vast network of US education centers within Colombia. Brazil is the only South American country that surpasses Colombia in terms of the number of students studying in the United States. These partnerships facilitate the exchange of students and academic programs between the two countries, providing Colombian students with greater access to study opportunities in the United States.

In addition to the United States, Europe is another sought-after destination for Colombian students interested in studying abroad. Spain, Italy, France, and Germany are among the most popular European countries for Colombian students seeking semesters or complete degrees abroad. There are several scholarship programs available for Colombian students who wish to study abroad, such as Colfuturo, Erasmus+ and Fulbright-Colciencias Program. Please find more details from the available programs from Appendix 4.

Collaboration & business opportunities

a) at the university & research level

Some Finnish universities and UAS have established fruitful collaborations and Memorandums of Understanding with Colombian universities and educational institutions. Currently, at least 7 Finnish universities or UAS have active or recently concluded collaborations with 9 Colombian universities or UAS.

Additionally, Oulu UAS and Haaga Helia have successfully implemented an education export program in teacher training in partnership with SENA.

Strengthening the cooperation between universities and UAS in Finland and Colombia would foster closer relationships and facilitate collaboration between the two countries in research, innovation, and knowledge exchange across various fields. There is a significant interest in Colombia for Finnish study programs, joint programs, and especially double-degree programs that offer students the opportunity to receive accreditation in both Finland and Colombia simultaneously. This presents valuable collaboration opportunities for Finnish universities and UAS. There is joint interest in many topics such as biodiversity, bioeconomy, sustainable development and environmental sciences.

This collaboration can extend beyond academic programs and include joint research projects, faculty exchange programs, and the sharing of best practices in teaching and learning. To promote and expand this collaboration, it is crucial to establish strong institutional partnerships, foster dialogue between academic communities, and explore avenues for joint funding opportunities.

b) Identified business level opportunities

1. **Edtech ecosystem, eLearning:** In October 2022, Colombia established a union called " Colombia EdTech " with the aim of bringing together startups and technology and education companies in Colombia. This presents a significant business opportunity for Finnish EdTech companies. Finland has a wide range of EdTech solutions offered by different companies, and there is tremendous potential in the Colombian market. Private schools and universities, in particular, could be potential buyers of new technology solutions. While there is also interest in public schools, it is important to note that the decision-making processes within the government can be time-consuming, and securing funding for EdTech solutions may pose challenges.

Finland offers a diverse range of technology solutions for all levels of education. Some of these educational applications have already begun entering the Colombian market. There is significant interest in Finnish education and technology solutions. At least one Finnish company is already a member of Colombia Edtech.

2. **Finnish teacher training** has a stellar reputation in Colombia, generating considerable interest in collaboration in this field. Finnish higher education institutions that can provide teacher-training programs for all levels of education tailored to the Colombian context and delivered in Spanish have an excellent opportunity to establish partnerships and contribute their expertise.
3. **Consultancy processes:** There is great potential for Finnish higher education institutions to provide consultancy services in research and innovation to different actors in the Colombian educational sector. Opportunities exist in areas such as reforming the teacher training system, renewing the degree structure, developing curriculum frameworks, and implementing new pedagogical approaches. Finnish expertise in these areas can support Colombia's educational development and provide valuable insights and guidance.
4. **Vocational education and training (VET):** Finnish vocational education and training is highly regarded worldwide, and there is growing interest in this field in Colombia. Finnish VET institutions, UAS providing education services on VET teacher training, other training providers, and companies specialized in vocational skills development can explore partnerships, knowledge exchange programs, and collaborative projects to support the advancement of vocational education in Colombia.
5. **Early childhood education:** Colombia recognizes the importance of early childhood education and has made efforts to expand access and improve quality. Finnish companies and higher ed-

education institutions with expertise in early childhood education, including curriculum development, pedagogical approaches, and learning materials, have an opportunity to collaborate with Colombian institutions in this crucial area.

6. **Sustainable education solutions:** Colombia is committed to sustainability and environmental awareness. Finnish companies and higher education institutions that offer sustainable education solutions, such as energy-efficient technologies, eco-friendly materials, and environmental education programs, can find potential customers and partners in Colombia.
7. **Degree student market / Talent Boost – opportunities:** Colombia has the potential to be an attractive market for degree studies in Finland, including English-taught bachelors, masters, and Ph.D. programs. Finland has a strong reputation for its high-quality education system and is known for offering a wide range of degree programs in various disciplines. Finland's degree studies, particularly at the Ph.D. level, hold significant appeal for Colombian students due to the tuition-free nature of education in Finnish universities. The opportunity to pursue a Ph.D. without tuition fees can be a major incentive for Colombian students seeking advanced research and academic opportunities.

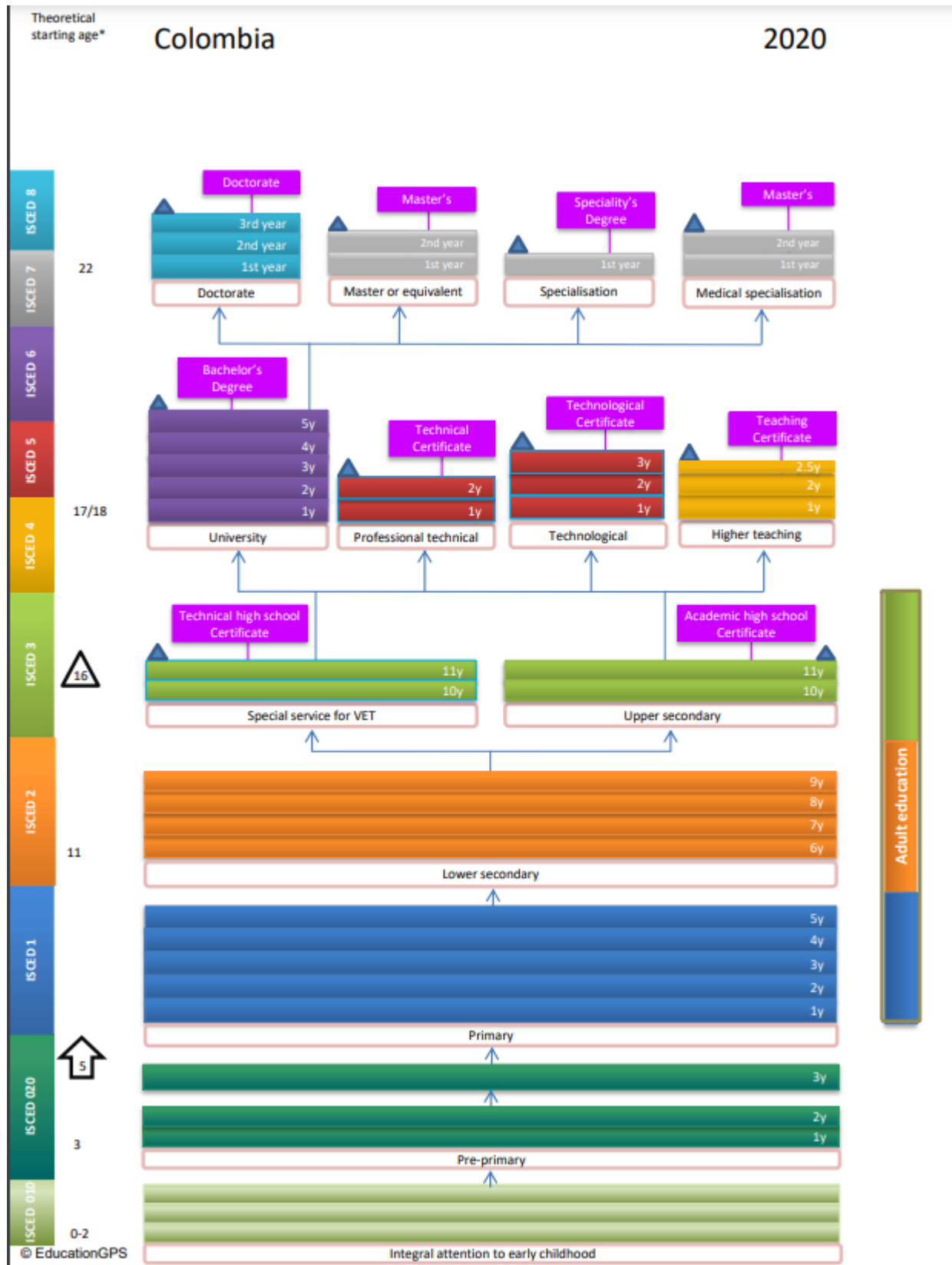
To attract Colombian students, Finnish universities can actively promote their programs in Colombia, participate in education fairs, establish partnerships with Colombian universities, and provide targeted information about scholarships and financial aid options. Collaborative initiatives between the two countries, such as talent boost activities, can further enhance the awareness and attractiveness of Finnish higher education among Colombian students. A local institution called “Instituto Nordico” provides free of charge advisory services to Colombians interested in studying in Nordic countries and make direct partnerships with Nordic universities.

8. **Education sector development cooperation and system-level exchange:** Collaborative initiatives between public administrators and academia from both countries can facilitate the transfer of knowledge, experiences, and innovative approaches to education.

One notable example of Finland's interest in developing collaboration and expert exchange with Colombia is the FinCEED program by the Finnish National Agency for Education (OPH). FinCEED aims to foster educational cooperation between Finland and selected partner countries, including Colombia. The program seeks to build sustainable partnerships, promote dialogue and mutual learning, and support capacity-building efforts in education.

Through FinCEED and similar initiatives, public administrators and academia can engage in various forms of cooperation, such as policy dialogue and reform, expert exchange and training, research collaboration and student and teacher mobility. To facilitate such cooperation, it is important to establish partnerships between relevant institutions, such as ministries of education, universities, research institutes, and educational organizations.

Appendix 1



Appendix 2: QS World University Rankings 2024 – Colombia

1. University de Los Andes	198 th
2. Universidad Nacional	226 th
3. Pontificia Universidad Javeriana	347 th
4. Universidad de Antioquía	701-710 th
5. Universidad de Rosario	711-720 th
6. Universidad EAFIT	731-740 th
7. Universidad Externado	751-760 th
8. Universidad la Sabana	791-800 th
9. Universidad Pontifical Bolivariana	801-850 th
10. Universidad ICESI	901-950 th
11. Universidad Industrial de Santander	1001-1200 th
12. Universidad del Norte	1001-1200 th
13. Universidad Valle del Cauca	1001-1200 th
14. Universidad de Cordoba	1201-1400 th
15. Universidad de Cartagena	1201-1400 th
16. Universidad de Medellín	1201-1400 th
17. Universidad de Cauca	1201-1400 th
18. Fundación Universidad de Bogotá Jorge Tadeo Lozano	1201-1400 th
19. Corporación Universitaria Tecnológica de Bolívar	1401-1500 th
20. Universidad Católica de Colombia	1401-1500 th
21. Universidad Tecnológica de Pereira	1401-1500 th
22. Universidad de Caldas	1401-1500 th
23. Universidad La Salle	1401-1500 th
24. Universidad de Magdalena	1401-1500 th

Appendix 3

Examples of Scholarships Programs to study in Colombian universities and technical institutions.

ICETEX Scholarships: The Colombian Institute of Educational Credit and Technical Studies Abroad (ICETEX) offers scholarships for Colombian students pursuing higher education within the country. ICETEX provides financial assistance through different scholarship programs, including undergraduate scholarships, postgraduate scholarships, and scholarships for technical and technological programs. These scholarships cover tuition fees and, in some cases, living expenses.

Colciencias Scholarships: Colciencias, the Administrative Department of Science, Technology, and Innovation in Colombia, provides scholarships for Colombian students in different academic levels, including technical schools and universities. Colciencias offers scholarships to promote research, innovation, and scientific development in the country. These scholarships are usually focused on specific areas such as STEM (Science, Technology, Engineering, and Mathematics) fields.

SENA Scholarships: The National Learning Service (SENA) in Colombia offers scholarships for technical education and vocational training programs. SENA provides opportunities for Colombians to develop practical skills and gain professional qualifications in various fields. The scholarships cover the costs of tuition fees and training materials.

Departmental and Municipal Scholarships: Many departments (administrative regions) and municipalities in Colombia have their own scholarship programs to support local students pursuing higher education. These scholarships are often aimed at promoting education and development within the region. The eligibility criteria and coverage of these scholarships vary depending on the specific department or municipality.

University-Specific Scholarships: Colombian universities may also offer their own scholarship programs for students at different degree levels. These scholarships can be merit-based or need-based and may cover tuition fees, living expenses, or a combination of both.

Appendix 4

Here are some notable scholarship opportunities to study abroad:

Colfuturo: Colfuturo is a Colombian scholarship program that supports students pursuing master's and Ph.D. degrees abroad. It offers financial assistance, including tuition fees, living expenses, and health insurance coverage. Colfuturo aims to contribute to the country's development by supporting highly qualified individuals in their pursuit of advanced studies.

Fulbright-Colciencias Program: This program is a collaboration between the Colombian Institute of Educational Credit and Technical Studies Abroad (ICETEX) and the Fulbright Program. It provides scholarships for Colombian students to pursue master's or Ph.D. degrees in the United States. The program covers tuition fees, living expenses, and health insurance.

Erasmus+: Erasmus+ is a European Union program that supports student mobility and cooperation among higher education institutions in Europe. Colombian students can apply for scholarships under the Erasmus+ program to study at partner universities in European countries. The scholarships cover tuition fees, travel costs, and living expenses.

Chevening Scholarships: The Chevening Scholarship program, funded by the UK government, offers fully funded scholarships for outstanding students from around the world, including Colombia. Chevening Scholarships cover the cost of tuition, living expenses, travel, and other necessary expenses. They enable recipients to pursue master's degrees in various fields at universities in the United Kingdom.

DAAD Scholarships: The German Academic Exchange Service (DAAD) offers scholarships for international students, including Colombians, to study in Germany. DAAD scholarships support bachelor's, master's, and Ph.D. studies in various disciplines. The scholarships provide financial support for tuition fees, living expenses, health insurance, and travel costs.

Australian Awards: The Australian government offers the Australia Awards scholarships for international students, including Colombians, to undertake full-time undergraduate or postgraduate studies in Australia. The scholarships cover tuition fees, living expenses, and travel costs.