



a bright future for Caribbean students

Joint Labor Market Summary

Annex

October 2025



Joint Labor Market Summary

Annex

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INTRODUCTION

This Annex complements the report titled 'Joint Labor Market Summary,' which was completed in October 2024. As its name implies, the Joint Labor Market Summary is not a stand-alone document. The Joint Labor Market Summary provides a recap of the main common findings and recommendations of four individual labor market reports, which were completed in July 2024. Each of these reports contains an analysis of the labor market of one or more Dutch Caribbean islands, respectively, Aruba, Curaçao, Sint Maarten, and the Caribbean Netherlands.¹

Underlying these labor market reports are several agreements, which were reached in April 2023 among the four ministers of education of the Kingdom of the Netherlands. The ultimate aim of these ministerial agreements is to increase the educational success of Dutch Caribbean students. The need for intervention in this area became clear in 2020, when research on Dutch Caribbean students following an education in the Netherlands revealed that these students were not performing as well as their counterparts.

The causes underlying the less positive educational results of Dutch Caribbean students were found to be related to the entire educational chain: from the preparatory didactic levels on the different islands to further education in the Netherlands. Meanwhile, the academic results of Dutch Caribbean students on the islands, in the region, and in the United States seemed to indicate that these educational options might be solid yet relatively underexplored alternatives.

In light of these findings, a group of governmental and educational institutions across the Dutch Kingdom joined forces and launched a platform called Strategic Education Alliance (SEA). SEA contributes to the educational success of Dutch Caribbean students by facilitating interactions between governments, educational institutions, students, and parents. In addition, SEA stimulates Dutch Caribbean students to properly prepare for their further studies, wherever they might go.

Over the course of 2023 and 2024, SEA commissioned the University of Aruba,

¹ Bonaire, Sint Eustatius, and Saba together form the Caribbean Netherlands.

the University of Curaçao, the University of Sint Maarten, and ROA CN², to conduct an analysis of the labor market of each respective island, based primarily on existing reports. These efforts resulted in the following reports:

- I. Aruba Labor Market Trends and the Role of Education*
- II. Labor Market Analysis Curaçao*
- III. Sint Maarten Labor Market Analysis*
- IV. Labor Market Analysis Caribbean Netherlands*
- V. Joint Labor Market Summary*

This Annex was commissioned by SEA in 2025 to complement the Joint Labor Market Summary, and provide necessary updates. Over the course of 2024 and 2025, stakeholders from the education sector, government, and the labor market on all the islands were consulted to validate the findings and recommendations included in the labor market analyses. In addition, some new reports containing information that is relevant to these analyses were published since late 2024.

Against this background, this Annex discusses the findings of the validation sessions held on the islands, as well as the implications of the Nature Plans which were set up by each island to comply with global requirements to set up and implement a National Biodiversity Strategy and Action Plan (NBSAP). The results of a manpower planning for the education labor market of Aruba, Bonaire, and Curaçao are also discussed.

Lastly, this Annex provides an education–labor market action plan, in which proposed activities, timeframes, leads and contributors are presented for the implementation of the recommendations derived from the five labor market reports, the validation sessions held with stakeholders on all the islands, and from the aforementioned complementary reports.

Section I provides a review of the five Dutch Caribbean labor market reports and the complementary reports. Section II discusses the findings and recommendations of the validation sessions held on the islands. Section III presents an action plan to address the common challenges faced by the islands in aligning the yields of education with labor market demands. Lastly, a conclusion is provided.

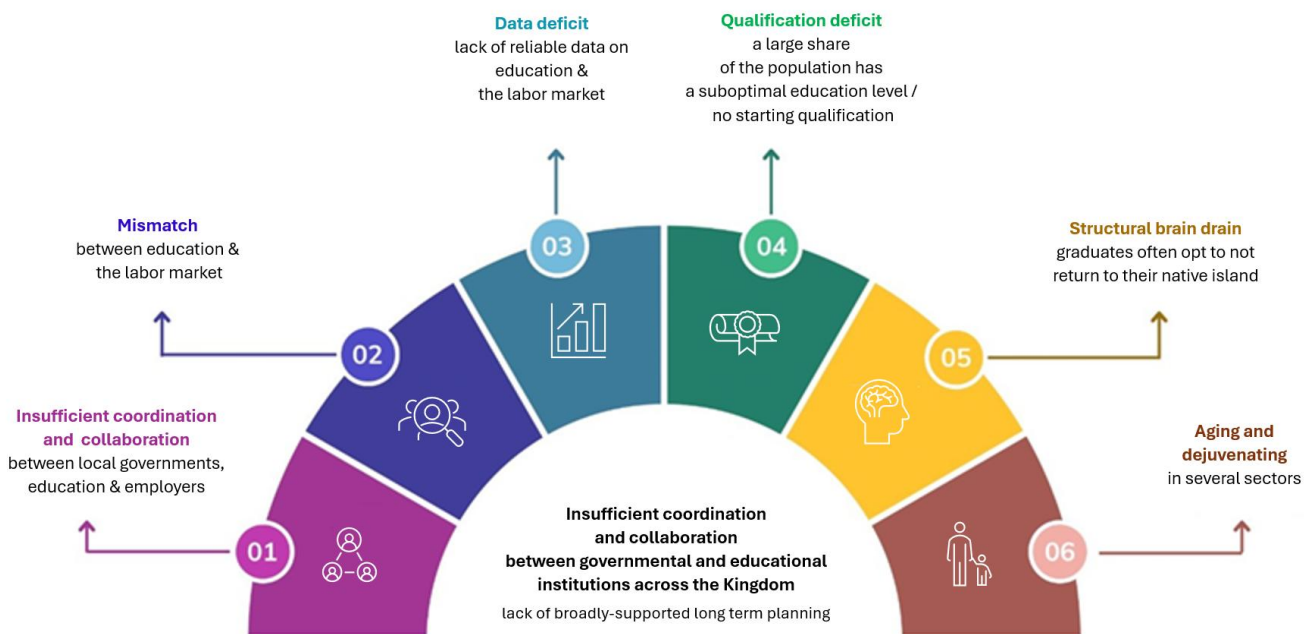
² ROA CN is the council for education and labor market of the Caribbean Netherlands.

I. REVIEW DUTCH CARIBBEAN LABOR MARKET REPORTS

I.1 Labor market reports and Joint Labor Market Summary

The Joint Labor Market Summary and its four underlying labor market reports shed light on the gaps in the education–labor market connection in Aruba, Curaçao, Sint Maarten, and the Caribbean Netherlands. Research on each of the islands into the alignment between labor market needs and the landscape of secondary and tertiary education revealed several common challenge areas. Figure 1 provides an overview of the main six areas.³

Figure 1 Main common challenges



*Source: Raad Onderwijs Arbeidsmarkt Caribisch Nederland (ROA CN); Image has been modified.

On all six islands, insufficient coordination and cooperation among local government institutions, education and the labor market, were found to contribute to a mismatch (gaps) in the connection between educational yields and the demands (current and future) of the labor market.

The education–labor market mismatch on each island was found to be not only quantitative (labor units or hours) but also qualitative (skills and

³ The six areas discussed in this section reflect the islands’ main common challenges. Consult the individual labor market analyses for a broader scope, detailing each island’s specific challenges.

knowledge). The sectors that reported the largest labor shortages across all the islands were tourism, construction, healthcare, education, and government.⁴ Although the severity of the reported shortages varies per sector and per island, there are noteworthy similarities among the islands' experiences.

All the islands were found to struggle with significant data shortages, both in the area of education and the labor market. The lack of reliable data of high quality means that research on education and the labor market is scarce, which is detrimental to strategic and long-term planning, policy making, and overall decision making.

Another common denominator on the islands is that a significant portion of the workforce lacks a starting qualification, or has attained a highest education level that can be considered suboptimal.^{5 6} This entails that many workers have *not* completed at least a mid-level education, which corresponds with an International Standard Classification of Education (ISCED) level 3.⁷

The labor shortages on the islands are also compounded by year-on-year brain drain.⁸ For several decades, many students from the islands have been seeking further education abroad. However, a significant share of these students choose to continue to live and work abroad after graduating, instead of returning to their native island.

Returning often depends on the strength of one's ties to the native island. Other common reasons for not moving back include a lack of professional prospects, as well as financial challenges, e.g., having to repay student loans denominated in (often stronger) foreign currencies. As a result, brain drain has been contributing to labor shortages in several sectors on the islands for years on end.

⁴ Joint Labor Market Summary, page 9.

⁵ In the Caribbean Netherlands, a starting qualification is attained by completing at least an upper secondary (mid-level) education (2nd year Mbo, or Havo/Vwo). Conversely, in the case of the other islands, a suboptimal education level refers to any level lower than an upper secondary (mid-level) education.

⁶ Joint Labor Market Summary, pages 6, 12 and 16.

⁷ De aanbodkant van de arbeidsmarkt - Resultaten van het Arbeidskrachtenonderzoek 2020, CBS Curaçao.

⁸ For more details on brain drain and brain gain in the Dutch Caribbean, consult "Braindrain: een integrale aanpak" (SEA report Ad2025.06.06).

On all the islands, demographic pressures stemming from declining youth cohorts (dejuvenating) and progressive population aging were found to trigger declines in the number of students, while adding to existing labor market pressures. The additional pressure results from relatively large parts of the aging workforce retiring every year. Given the developments in the age structure of the islands' populations, net workforce outflows can be expected in several sectors for many years, unless offset by other inflows.

A lack of economic diversification is another major challenge shared by the islands. Given the relatively small size and the openness of the islands' economies, their (over)reliance on tourism as the main source of income exacerbates their economic vulnerability. Realizing economic diversification, therefore, is an objective shared by all the islands.

In the pursuit of diversification, having a population that is skilled and ready for the rapidly changing world of work is fundamental. Human capital accumulation is not only a trigger of higher productivity and growth, but it may also lead to new opportunities to generate income. In light of the rapid pace of technological developments, among which artificial intelligence (AI), possessing up-to-date digital and cognitive skills is becoming increasingly important for both those in and those joining the workforce.

Therefore, the islands stand to benefit from continuously updating their digital infrastructure⁹ and ensuring that their populations keep up with the increasing demands of the 21st century labor market.¹⁰ However, cashing in on income-generating opportunities depends on sufficient and consistent investments in the islands' education system and infrastructure.¹¹

Another noteworthy challenge on all the islands is the relatively high cost of living. As a result of financial constraints, it is not uncommon for those who are eligible to retire to continue working for some time, simply out of necessity. Meanwhile, for the young, investing time and money in education might often not be a priority or even an option, while their basic needs are at risk of not being met. Therefore, financial barriers may be limiting opportunities for professional development and upward mobility, as such

⁹ <https://www.worldbank.org/en/results/2025/04/15/quantifying-the-jobs-potential-of-ai-in-latin-america-and-the-caribbean>

¹⁰ Joint Labor Market Summary, page 13.

¹¹ Joint Labor Market Summary, pages 13 and 16.

perpetuating a cycle of underqualification and hindering socio-economic advancement.¹²

In light of the vast array of challenges faced by the islands, the improvement of coordination and collaboration between governmental and educational institutions *at all levels across the Kingdom*, and with the labor market is deemed of crucial importance. A similar integral approach is advocated in a report on brain drain, which was published by SEA.¹³ Joining efforts and resources to address challenges is not only desirable, but a requirement for the islands to make progress in many areas.

The analyses conducted on the islands have made it clear that the mismatch between education and the labor market is best addressed jointly, in a holistic and integral manner. Partnership optimization across the Kingdom is crucial to ensure the drafting and effective implementation of broadly supported long-term planning. Failure to take proper and timely action is expected to lead to widening education-labor market gaps, while also hindering much-needed investments in education on the islands.

Against this complex and challenging backdrop, the Joint Labor Market Summary discusses the following six topics, which relate to all the islands:

- I. Optimize the cooperation and collaboration among government and educational organizations (local, inter-island, and Dutch), and the labor market across the Dutch Kingdom.
- II. Minimize labor shortages and skills gaps in strategic sectors on the islands.
- III. Establish robust systems to collect and manage high-quality data on education and the labor market.
- IV. Increase the relevance, attractiveness, and accessibility of vocational and tertiary education.
- V. Increase talent cultivation, transfer, retention, and recovery.
- VI. Make on-the-job and lifelong learning more attractive and accessible.

¹² Joint Labor Market Summary, page 7.

¹³ For more details, consult “Braindrain: een integrale aanpak” (SEA report Ad2025.06.06).

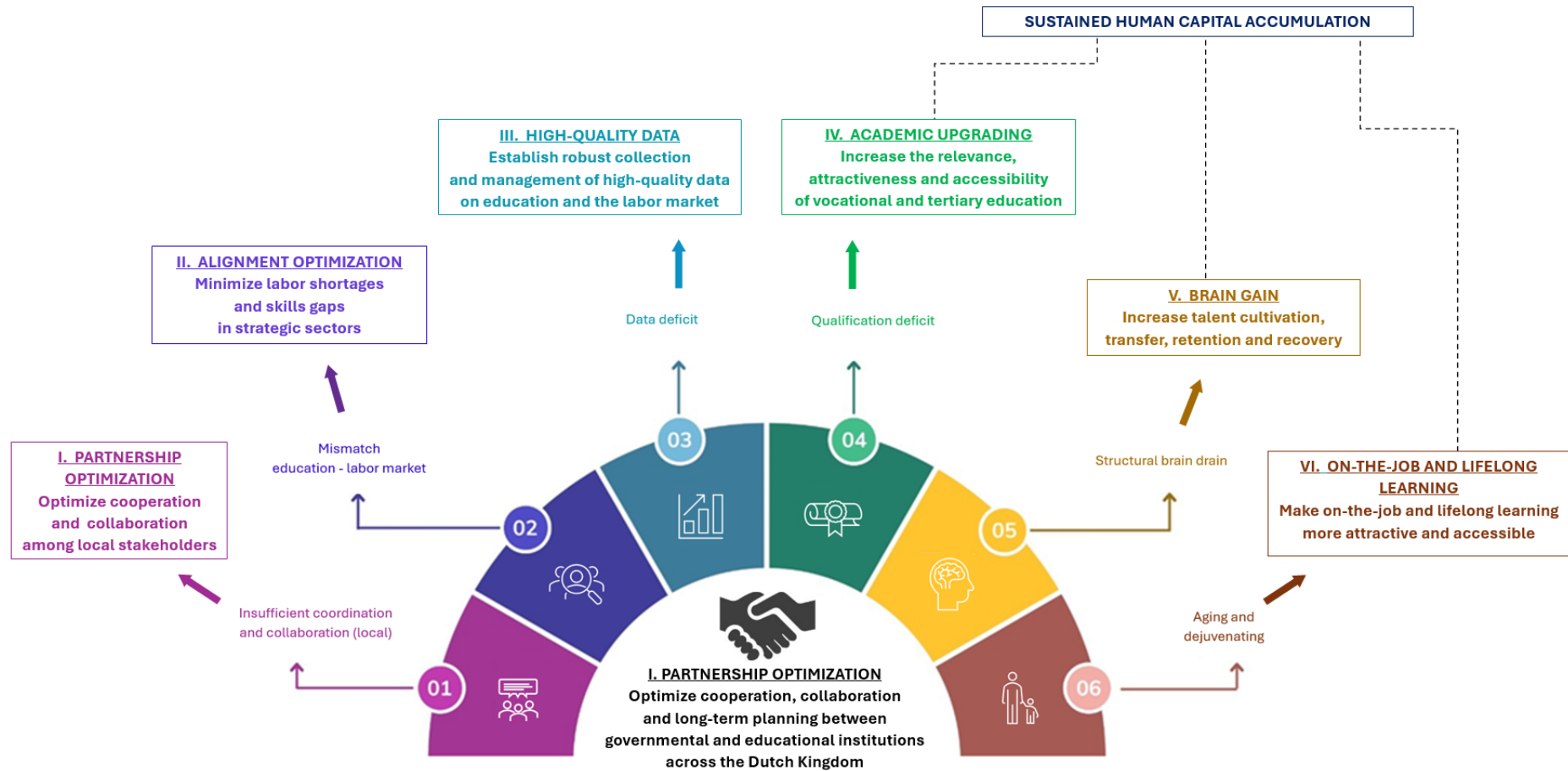
Table 1 provides a side-by-side comparison of the islands' main common challenges, and the topics included in the Joint Labor Market Summary. For each topic, Table 1 also provides an overarching objective, reflecting the desired outcome of efforts that address the common challenges.

Table 1 Main common challenges, topics, and objectives

Main common challenges	Joint Labor Market Summary topics and objectives
1. Insufficient cooperation and collaboration	<p><i>Topic I: Optimize the cooperation and collaboration among governmental and educational institutions (local, inter-island, Dutch), and the labor market across the Dutch Kingdom.</i></p> <p>Objective I: Partnership optimization</p>
2. Mismatch education-labor market	<p><i>Topic II: Minimize labor market shortages and skills gaps in strategic sectors on the islands.</i></p> <p>Objective II: Alignment optimization</p>
3. Data deficit	<p><i>Topic III: Establish robust systems to collect and manage high-quality data on education and the labor market.</i></p> <p>Objective III: High-quality data</p>
4. Qualification deficit	<p><i>Topic IV: Increase the relevance, attractiveness, and accessibility of vocational and tertiary education.</i></p> <p>Objective IV: Academic upgrading</p>
5. Structural brain drain	<p><i>Topic V: Increase talent cultivation, transfer, retention, and recovery.</i></p> <p>Objective V: Brain gain</p>
6. Ageing and dejuvenating	<p><i>Topic VI: Make on-the-job and lifelong learning more attractive and accessible.</i></p> <p>Objective VI: On-the-job and lifelong learning</p>

Figure 2 provides a visual representation of the islands' common challenges, topics, and objectives, in line with Figure 1 and Table 1. Objectives IV, V, and VI overlap somewhat, since all three are primarily aimed at sustained human capital accumulation, which is crucial for economic growth. The overlap between objectives IV, V, and VI is reflected by the lines connecting them.

Figure 2 Main common challenges, topics, and objectives



*Source: Raad Onderwijs Arbeidsmarkt Caribisch Nederland (ROA CN); Image has been modified.

The Joint Labor Market Summary provides several recommendations, aimed at overcoming the islands' common challenges. Figure 3 shows a concise overview of these recommendations, along with their overarching objectives. Consult Table 6 in the Appendix for a more detailed overview.

Figure 3 Overview Joint Labor Market Summary recommendations and objectives



I. PARTNERSHIP OPTIMIZATION

1. Cooperation and collaboration among government and educational institutions across the Kingdom, and the labor market.
2. Cooperation among Dutch ministries liaising with the islands.
3. A council for education and labor market (ROA) for each island.



II. ALIGNMENT OPTIMIZATION

1. Improve the quality of education, and the attractiveness of working in shortage sectors.
2. Improve digital competencies, cognitive skills, soft skills, and other 21st century skills at all education levels (STEM education, Digital Caribbean Academy).



III. HIGH-QUALITY DATA

1. Establish robust high-quality data collection and management systems, and a central vacancy registry.
2. Facilitate research on education and labor market developments to obtain key indicators and support policy making.



IV. ACADEMIC UPGRADING

1. Upgrade vocational and tertiary educational offerings (e.g., digital literacy, financial literacy, STEM education) and increase their attractiveness and accessibility.
2. Increase student enrollment by improving benefits and conditions for sectors and functions with a negative image.
3. Improve student-worker transition by providing career guidance and training both before and after joining the labor market (BBL).
4. Stimulate students and the workforce to aim for higher educational achievements.



V. BRAIN GAIN

1. Facilitate research into brain drain, and implement policies to promote brain gain.
2. Implement policies aimed at knowledge recovery, development, and sharing.
3. Stimulate graduates and (young) professionals to return by providing attractive benefits, incentives, and assistance.
4. Facilitate regional educational opportunities.



VI. ON-THE-JOB AND LIFELONG LEARNING

1. Facilitate lifelong learning to upskill and reskill employees (including older workers).
2. Implement policies aimed at knowledge upgrade and intergenerational transfer.
3. Stimulate employers to provide high-quality on-the-job training (BBL).
4. Increase modular and flexible educational offerings to stimulate continued participation in education and skills upgrading.

1.II Complementary reports

Since the completion of the four individual labor market analyses and the Joint Labor Market Summary in late 2024, several new insightful reports have been published. This section discusses a few complementary reports that are deemed relevant to the analysis of the labor markets of the Dutch Caribbean islands.

The reports to be discussed include a National Biodiversity Strategy and Action Plans (NBSAP) of each island, as well as a manpower planning that was conducted for the education labor market of Aruba, Bonaire, and Curaçao. The findings of these reports and their implications for the labor market analyses of the Dutch Caribbean islands are relayed in the following paragraphs.

1.III.1 National Biodiversity Strategy and Action Plans (NBSAPs)

In December 2022, the Kunming–Montreal Global Biodiversity Framework (GBF) was agreed to by the United Nations during the Conference of the Parties to the Convention on Biological Diversity (CBD). The aim of the GBF is to halt global biodiversity loss by protecting at least 30% of the planet's oceans, inland waters, and land by 2030. This goal is often referred to as '30 by 30.' Another goal of the framework is to tackle biodiversity drivers and restore ecosystems around the planet by 2050.

Aruba, Curaçao, and the Caribbean Netherlands published an NBSAP for up to 2030. Sint Maarten's NBSAP for up to 2030 has yet to be published. For the purpose of this analysis, the most recent nature plan of each of the Dutch Caribbean islands is reviewed. The titles of the nature plans are as follows:

Aruba: *National Biodiversity Strategy and Action Plan (NBSAP) 2024–2030*
"Harmonizing People and Nature"

Curaçao: *Nature Policy Plan Curaçao 2024 – 2030 (NPP)*.

Bonaire: *National Biodiversity Strategy & Action Plan Netherlands 2025–2030*
(BES Islands); Part 2 of the "Nationaal Biodiversiteit Strategie &
Actieplan Nederland 2025–2030"

Sint Maarten: *Nature Plan Sint Maarten 2021 – 2025*

The nature plans all recognize nature as a crucial basis for sustainable economic and societal development. The plans reveal that the islands will be required to decrease or move away from traditional economic activities, such as mass tourism, traditional mining, construction, and agriculture, in favor of activities that are geared towards nature-inclusive sustainable economic development.

All four nature plans stress the importance of education in order to create nature awareness and knowledge among the general population, and realizing a mindset in which nature becomes inclusive and is taken into consideration by everyone by default.

Aruba's plan specifically emphasizes the crafting of a new 'Aruban narrative', aimed at integrating the value of nature into the identity of the Aruban people, with education being key to enhancing awareness.

Curaçao aims to develop a mindset of nature awareness, appreciation, and pride in all sectors of the community, through the implementation of a government-led communication campaign and by incorporating nature into all levels of the educational system.

In the case of Bonaire, Sint Eustatius, and Saba, the aim is to weave nature awareness and knowledge into existing education and training programs. Their nature plan emphasizes capacity building in order to attain sufficient local personnel, while underscoring that structural funding is a crucial condition for sustainable results.

Meanwhile, Sint Maarten's focus is on creating awareness materials about biodiversity and conservation through a nationwide communication, education, and public awareness strategy. New teaching materials about nature and the environment are to be incorporated in the school curriculum.

Although all four nature plans mention expected impacts for education, these are mostly centered around awareness and knowledge creation. Little to no details are revealed about specific courses or programs that will be developed and/or incorporated in the different education curriculums. Several areas of planning and implementation included in the plans still need to be elaborated upon in the near future.

However, given that 2030 is only five years away, attaining the '30 by 30' goal, will depend on how fast and effectively the islands' governments and educational institutions will be able to make the necessary adjustments. Complying with the 2030 and other nature conservation goals means that the islands' workforce participants and broader communities will be expected to be environmentally literate, and to possess up-to-date skills, in order to support and promote nature-inclusive sustainable economies.

While labor demand declines are foreseen in some traditional sectors, new opportunities are expected to abound, requiring additional workforce and entrepreneurial skills. Some of the areas in which labor demand is expected to blossom include ecological restoration, nature-related education, community awareness, nature-centered policies formulation and enforcement, sustainable tourism, environmental data gathering and management, environmental research and innovation, and nature-focused urban planning.

In order to prevent additional mismatches in the islands' education-labor market connection as a result of the activities, functions and processes required to comply with current and future the GBF goals, Table 2 presents two new recommendations. These recommendations were drafted against the backdrop of the islands' most recent NBSAPs.

Table 2 NBSAP-related challenges, topics, and objectives

Common challenges	Topics and objectives
1. Mismatch education-labor market (NBSAP-related)	<p><i>Topic: Prevent mismatches related to the NBSAP by timely establishing, quantifying, and facilitating the resources (educational, financial, workforce-related, legal, and other) needed in order to comply with the GBF and NBSAP goals.</i></p> <p>Objective II: Alignment optimization</p>
2. Data deficit (NBSAP-related)	<p><i>Topic: Facilitate the timely generation, collection and management of high-quality data and research needed to ensure proper compliance with the '30 by 30' goal, and other GBF and NBSAP goals.</i></p> <p>Objective III: High-quality data</p>

The action steps, and other details of the implementation of activities related to the islands' NBSAPs are included in the education-labor market action plan (Section III).

1.II.II Manpower Planning education sector Aruba, Bonaire, and Curaçao

The report 'Manpower Planning Onderwijssector op de ABC-eilanden' (2024) relays the results of a recent labor market and education sector research conducted in Aruba, Bonaire, and Curaçao (ABC-islands) by Ecorys. The report was commissioned by Partnerschap Kibrahacha, a partnership between (primary) schools and teacher education programs on the ABC-islands.

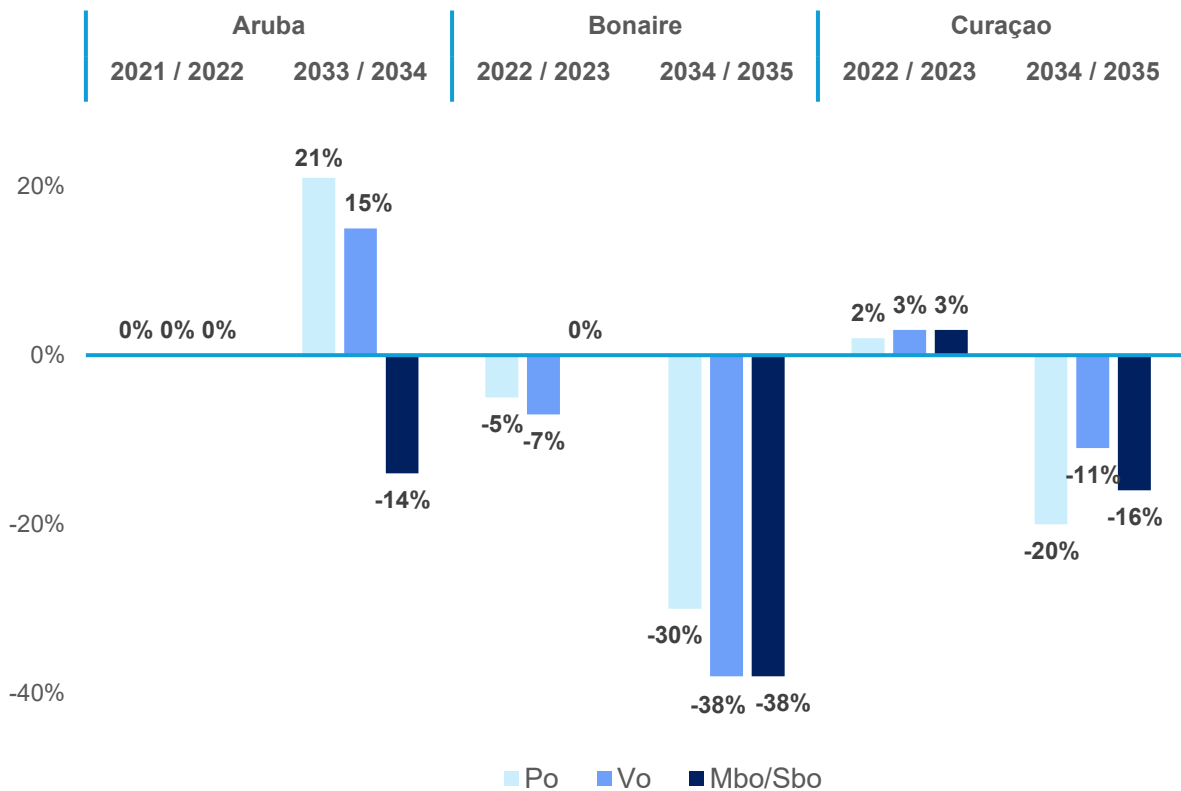
The manpower planning provides insight into the expected match between the supply of teacher education programs and the demand for educational personnel, both now and up to twelve years in the future. The educational levels included in the research are: primary education (Po), secondary education (Vo), and secondary vocational education (Mbo/Sbo).

Figure 3 shows the projections made for Aruba (2021/2022 - 2033/2034), and for Bonaire and Curaçao (both 2022/2023 - 2034/2035). As the figure shows, labor shortages are expected at all three education levels in Curaçao and Bonaire in twelve years, but in Aruba only in secondary vocational education.

Aruba is expected to experience labor surpluses in its primary and secondary education, as the projected decline in its population cohorts aged 5-14 and 10-19 years outweigh the expected drop in the educational work force due to ageing (retirement). Meanwhile, the opposite effects are expected in Aruba's secondary vocational education.

The reason behind the labor shortages in Curaçao and Bonaire is that the decline in the ageing workforce (due to retirement) is expected to outweigh the demand for education. Bonaire's population is projected to grow, while Curaçao's youth cohort is expected to remain about the same by 2035.

Figure 4 Education labor force projections ABC islands



In Bonaire, labor shortages are primarily foreseen related to the following courses: physics, technology, geography, and math. In Curaçao, projected labor shortages are primarily related to geography, chemistry, and general social studies. Meanwhile, German, and music courses are expected to experience labor surpluses in Curaçao.

According to several reports on the education labor market of Aruba, Curaçao, and Bonaire, all three islands have reportedly been experiencing labor shortages and/or difficulties filling vacant positions in education for several years.¹⁴ However, based on the data collected by the researchers, no significant shortages existed in 2023.

One possible explanation for this discrepancy is that although there might not be any shortages on paper (when considering the entire education labor

¹⁴ Manpower Planning Onderwijssector op de ABC-eilanden, page 5.

market), there may be some schools that experience shortages while others experience surpluses. Moreover, shortages may be qualitative rather than quantitative. Therefore, more research is recommended, in order to identify the composition of past and future shortages/surpluses, as such facilitating better policy making and decision making related to the education labor market on all three islands.

Since education is one of the strategic sectors that has been reporting labor shortages for several years, it is crucial that government and education institutions take timely action to prevent additional pressure on the education labor market of Aruba, Bonaire, and Curaçao. Against this background, Table 3 provides one new recommendation.

Table 3 Education Manpower Planning-related challenge, topic, and objective ABC islands

Common challenge	Topic and objective
1. Mismatch education-labor market ABC islands (Education Manpower Planning-related)	<p><i>Topic: Prevent additional mismatches on the education labor market by timely facilitating the resources (educational, financial, human, and other) needed in order to comply with labor demand.</i></p> <p>Objective II: Alignment optimization</p>

The action steps, and other details related to the implementation of the activities related to the ABC islands’ manpower planning of the education sector are included in the education-labor market action plan (Section III).

II. VALIDATION DUTCH CARIBBEAN LABOR MARKET REPORTS

Over the course of 2024 and the first ten months of 2025, the findings and recommendations included in the four individual labor market analyses were validated during round-table consultations held with stakeholders from the education sector, government, and the labor market on all the islands. An analysis of the information and insights gathered during the validation sessions reveals that stakeholders' views and experiences are generally in line with the findings and recommendations in the different labor market analyses, and the Joint Labor Market Summary (see Table 4).

Table 4 Overview labor market recommendations

Joint Labor Market Summary	AUA*	CUR*	SXM*	CN*	
Topics and # of recommendations	# of validated recommendations**				
I. Optimize the cooperation and collaboration among governmental and educational institutions, and the labor market across the Dutch Kingdom.	3	3-3	3-3	3-3	2-3
II. Minimize labor market shortages and skills gaps in strategic sectors.	2	1-2	2-2	2-2	2-2
III. Establish robust systems to collect and manage high-quality data on education and the labor market.	2	2-2	2-2	2-2	2-2

Joint Labor Market Summary	AUA*	CUR*	SXM*	CN*
Topics and # of recommendations	# of validated recommendations**			

IV. Increase the relevance, attractiveness, and accessibility of vocational and tertiary education.	4	3-4	2-4	3-4	2-4
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V. Increase talent cultivation, transfer, retention, and recovery.	4	1-4	2-4	1-4	3-4
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VI. Make on-the-job and lifelong learning more attractive and accessible.	4	4-4	4-4	3-4	4-4
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* Aruba (AUA), Curaçao (CUR), Sint Maarten (SXM), Caribbean Netherlands (CN: Bonaire, Sint Eustatius, Saba).

**The Joint Labor Market Summary recommendations are deemed 'validated' if similar to those made by stakeholders.

As indicated in the Table, the stakeholders consulted in Aruba, Curacao, Sint Maarten, and the Caribbean Netherlands provided a fair number of recommendations that generally coincide with those included in the five labor market reports. For a side-by-side overview of the recommendations in the Joint Labor Market Summary and those made by stakeholders during the validation sessions, consult Table 6 in the Appendix.

Stakeholders also provided a plethora of best practice examples and other useful information during the validation sessions. Therefore, the action plan to tackle the common challenges the six Dutch Caribbean islands face in their respective education-labor connection (Section III), is based on the four labor market analyses, the Joint Labor Market Summary, and on input received from stakeholders.

III. EDUCATION–LABOR MARKET ACTION PLAN

This section presents an action plan for the Dutch Caribbean islands, based on the common topics and recommendations included in the Joint Labor Market Summary. These recommendations are aimed at optimizing the alignment between education and the labor market on the islands. Given the different specific challenges and circumstances on each island, their individual action steps, priority levels, and preferred implementation period may vary.¹⁵

Financial, physical, and other constraints also play a crucial role in the implementation of the action plan, as does the availability of qualified staff to execute the required tasks on a timely basis. Therefore, the action plan included in Table 5 shows preliminary priority levels and times for the implementation of recommendations. As more insight is gained into the islands' different underlying constraints, tools, and resources available for implementation, the action plan may be updated accordingly.

The monitoring of progress of the steps included in the action plan is contingent on qualitative and/or quantitative indicators and benchmarks. Further research is needed to identify the best indicators and benchmarks to be applied in this context for each island. Due to the lack of data on both education and the labor market, there are few readily available measurables at this point. Moreover, the islands may choose different benchmarks or indicators, based on their specific circumstances and goals.

¹⁵ This action plan focuses on the six islands' common challenges. Challenges that are specific to each island have to be incorporated separately in their individual action plans.

Table 5 Education–labor market action plan Dutch Caribbean islands

Objectives & topics	Recommendations	Priority (1-5)*	Completion time	Lead/ main contributor(s)	Country /island institution**
<p><u>I. Partnership optimization</u> <i>Optimize the cooperation and collaboration among governmental and educational institutions, and the labor market across the Kingdom.</i></p>	<p>1. Establish regular consultation rounds among ministries/ departments/public services, educational institutions, labor market participants, and other stakeholders (local, inter-island, and Kingdom level).</p>	1	As soon as possible.	<p>Ministries/departments/public services (education, economic affairs, labor & social affairs) across the Kingdom. PEL Aruba, ROA Curaçao, ROA Sint Maarten (if possible), ROA CN. Labor market representatives. Other stakeholders.</p>	<p>NL, AUA, CUR, SXM, CN. In the Netherlands: among the ministries in charge of providing support/assistance to the islands. Local and inter-island: among all relevant stakeholders. Kingdom-wide: among education and government institutions.</p>
	<p>2. Establish a full-fledged labor council for education and the labor market, which is (semi) independent, visible, approachable, and specific to each island’s needs. Strengthen and increase the financial,</p>	1	Within the next 12-24 months.	<p>Ministries/departments/public services (education, economic affairs, labor & social affairs, in Aruba, Curaçao, Sint Maarten. PEL Aruba, ROA Curaçao, ROA Sint Maarten (if possible). Labor market representatives.</p>	<p>AUA, CUR, SXM. Consult with ROA CN if possible.</p>

Objectives & topics	Recommendations	Priority (1-5)*	Completion time	Lead/main contributor(s)	Country /island institution**
	human capital and other resources of existing councils/ institutions that currently execute these tasks (if applicable), to preserve existing expertise, and knowledge base.				
	3. Facilitate structural funding for investments and innovation in the education system.	1	Within the next 12 -18 months.	Ministries/departments/public services (education, economic affairs, labor & social affairs. Other public and private stakeholders.	NL, AUA, CUR, SXM, CN.
	4. Promote a progressive mindset in government institutions to facilitate the timely integration of new developments (e.g., AI) into the educational system.	1	Ongoing.	All ministries/ departments and other government institutions.	AUA, CUR, SXM, CN.
<u>II. Alignment optimization</u>	1. Facilitate the upgrade of education	2	July 2027 latest	Ministries/departments/public services (education,	AUA, CUR, SXM, CN.

Objectives & topics	Recommendations	Priority (1-5)*	Completion time	Lead/ main contributor(s)	Country /island institution**
<i>Minimize labor market shortages and skills in strategic sectors.</i>	programs to increase the attractiveness of jobs in strategic sectors with labor shortages.		(before the start of academic year 2027-2028)	economic affairs, labor & social affairs, in Aruba, Curaçao, Sint Maarten, Caribbean Netherlands. PEL Aruba, ROA Curaçao, ROA Sint Maarten (if possible), ROA CN. Labor market representatives. Other stakeholders.	Main shortage sectors: hospitality, construction, healthcare, education.
	2. Stimulate the attractiveness and rewards of working in strategic sectors with labor shortages (including among older workers).	2	Within the next 12 -18 months.	Same as previous.	AUA, CUR, SXM, CN. Main shortage sectors: hospitality, construction, healthcare, education.
	3. Upgrade digital literacy, cognitive skills, soft skills, and other 21 st century skills at all education levels and for all age groups by, e.g., promoting STEM education, and establishing a "Digital Caribbean Academy."	2	Within the next 12 -24 months.	Same as previous. Additional: Ministry/department of finance, IT.	AUA, CUR, SXM, CN. One Digital Caribbean Academy that provides programs, courses, and support to all islands. See overview 21 st century skills in the Appendix.

Objectives & topics	Recommendations	Priority (1-5)*	Completion time	Lead/main contributor(s)	Country /island institution**
	4. Prevent additional mismatches/shortages on the <i>education labor market</i> by timely facilitating the resources (financial, human, and other) needed to comply with labor demand.	1	Within the next 12 -18 months.	Ministries/departments of education, labor & social affairs, and finance, PEL Aruba, ROA Curaçao, ROA CN. Labor market representatives. Other stakeholders.	AUA, CUR, BON. Shortage sector: education (See: Manpower Planning Onderwijssector op de ABC-eilanden).
	5. Prevent mismatches related to the NBSAP by timely establishing/ quantifying and facilitating the resources (educational, financial, workforce, legal, and other) needed to comply with the GBF and NBSAP goals.	2	Within the next 18 - 24 months.	Ministries/departments/public services (education, economic affairs, labor & social affairs). Nature protection and restoration organizations/ foundations. Other stakeholders.	AUA, CUR, SXM, CN. (See: NBSAPs). Consult with Dutch government and nature protection and restoration organizations/ foundations if possible.
<u>III. High-quality data</u> <i>Establish robust systems to collect and manage</i>	1. Establish robust centralized data collection and management systems.	2	Within the next 12-24 months.	Ministries/departments/public services (education, economic affairs, labor & social affairs), IT. PEL Aruba ROA Curaçao, ROA Sint Maarten (if possible),	AUA, CUR, SXM, CN. High-quality data: accurate, complete, consistent, timely, and relevant.

Objectives & topics	Recommendations	Priority (1-5)*	Completion time	Lead/main contributor(s)	Country /island institution**
<i>high-quality data on education and the labor market.</i>				ROA CN. Labor market representatives. Other stakeholders.	
	2. Establish a central registry of vacancies.	2	Within the next 12-18 months.	Same as previous.	AUA, CUR, SXM, CN.
	3. Facilitate research on key education and labor market developments, as such facilitating the timely availability of key indicators.	3	Within the next 18-30 months.	Same as previous. Additional: Ministry of finance, IT.	AUA, CUR, SXM, CN.
	4. Facilitate the timely generation, collection and management of quality data and research needed to ensure proper compliance with the 2030 and other GBF and NBSAP goals.	2	Within the next 18-24 months.	Same as previous. Additional: Ministry of finance, IT, legal affairs/compliance.	AUA, CUR, SXM, CN.

Objectives & topics	Recommendations	Priority (1-5)*	Completion time	Lead/ main contributor(s)	Country /island institution**
<u>IV. Academic upgrading</u> <i>Increase the relevance, attractiveness, and accessibility of vocational and tertiary education.</i>	1. Update and upgrade educational programs and courses (by focusing on e.g., digital literacy, STEM education) to increase their attractiveness and alignment with the skills demanded by the 21 st century labor market.	2	July 2027 latest (before the start of academic year 2027-2028); ongoing.	Ministries/departments/public services (education, economic affairs, labor & social affairs). PEL Aruba ROA Curaçao, ROA Sint Maarten (if possible), ROA CN. Labor market representatives. Other stakeholders.	AUA, CUR, SXM, CN. Link with Digital Caribbean Academy.
	2. Stimulate students and the current workforce (including older workers) to aim to continuously pursue academic upgrading, and to exceed minimum qualification levels as much as possible.	2	July 2026 latest (before the start of academic year 2026-2027)	Same as previous.	AUA, CUR, SXM, CN.
	3. Improve the primary and secondary employment conditions in sectors and functions with a negative image or	2	July 2026 latest (before the start of academic	Ministries/departments/public services (education, economic affairs, labor & social affairs, finance). PEL Aruba, ROA Curaçao,	AUA, CUR, SXM, CN.

Objectives & topics	Recommendations	Priority (1-5)*	Completion time	Lead/ main contributor(s)	Country /island institution**
	perception, to increase student enrollment levels.		year 2026-2027)	ROA Sint Maarten (if possible), ROA CN. Labor market representatives. Other stakeholders.	
<u>V. Brain gain</u> <i>Increase talent cultivation, transfer, retention, and recovery.</i>	1. Implement policies designed to develop and upgrade existing talent.	3	Within the next 18–30 months	Ministries/departments/public services (education, economic affairs, labor & social affairs) across the Kingdom. PEL Aruba, ROA Curaçao, ROA Sint Maarten (if possible), ROA CN. Labor market representatives. Other stakeholders.	AUA, CUR, SXM, CN.
	2. Increase regional educational opportunities.	4	Within the next 36 months	Same as previous.	AUA, CUR, SXM, CN.
	3. Encouraging graduates and (young) professionals to return by providing attractive salary levels and benefits, subsidies on study loan repayments, tax	3	Within the next 18–30 months	Same as previous. Additional: Ministry of finance, tax department, and other agencies in charge of student affairs/ loans/ scholarships.	AUA, CUR, SXM, CN.

Objectives & topics	Recommendations	Priority (1-5)*	Completion time	Lead/ main contributor(s)	Country /island institution**
	incentives for returning individuals or companies that employ them, and providing assistance with housing.				
	4. Develop temporary immigration policies with strict conditions.	3	December 2026 latest.	Ministry of justice, including permit department, and border control Other relevant stakeholders.	AUA, CUR, SXM, CN.
<u>VI. On-the-job and lifelong learning</u> <i>Make on-the-job and lifelong learning more attractive and accessible.</i>	1. Facilitate lifelong learning and programs to upskill and reskill employes in line with labor market developments and requirements (e.g., by incorporating digital literacy and STEM education).	2	Within the next 18-30 months	Ministries/departments/public services (education, economic affairs, labor & social affairs, finance). PEL Aruba, ROA Curaçao, ROA Sint Maarten (if possible), ROA CN. Labor market representatives. Other stakeholders.	AUA, CUR, SXM, CN.
	2. Facilitate on-the-job learning (Beroeps Begeleidende Leerweg (BBL)). include training of employers/	2	Within the next 18-30 months	Same as previous.	AUA, CUR, SXM, CN.

Objectives & topics	Recommendations	Priority (1-5)*	Completion time	Lead/main contributor(s)	Country /island institution**
	stakeholders to ensure high quality job shadowing.				
	3. Offer more flexible/modular education to increase continued participation in education and learning, (also among older workers).	2	Within the next 18-30 months	Same as previous.	AUA, CUR, SXM, CN.
	4. Implement policies designed to develop and upgrade knowledge, and to promote intergenerational knowledge transfer.	3	Within the next 24-36 months	Same as previous.	AUA, CUR, SXM, CN.

IV. CONCLUDING SUMMARY

The Joint Labor Market Summary and its four underlying labor market reports shed light on the gaps in the education-labor market connection in Aruba, Curaçao, Sint Maarten, and the Caribbean Netherlands. This Annex complements the Joint Labor Market Summary, which was finalized in October 2024, by presenting the results of the validation sessions held with stakeholders from the education sector, government, and the labor market on all the islands over the course of 2024 and 2025.

In addition, this Annex discusses the findings and implications of several relevant reports, which were published after the Joint Labor Market Summary was finalized. These reports include a National Biodiversity Strategy and Action Plan (NBSAP) of each island, as well as a manpower planning which was conducted for the education labor market of Aruba, Bonaire, and Curaçao.

Also included in this Annex is an education-labor market action plan, based on the recommendations derived from all five labor market reports, the validation sessions, the NBSAPs, and the ABC islands' manpower planning. As the fine-tuning and implementation of the different activities and processes included in this action plan progresses, more insight will be gained into each island's specific priorities, goals, constraints, tools, resources, bottlenecks, and challenges.

The monitoring of the implementation of the action plan is contingent on qualitative and quantitative indicators and benchmarks. Due to the lack of data on both education and the labor market, no specific indicators or benchmarks have been included in the action plan as yet. Further research is needed to identify the best indicators and benchmarks to be applied, in line with each island's specific needs.

APPENDIX

Table 6 Overview Recommendations

Joint Labor Market Summary		Selected validation session recommendations	A U A	C U R	S X M	C N
Objectives/ Topics	Recommendations					
<p><u>I. Partnership optimization</u> Optimize the cooperation and collaboration among governmental and educational institutions, and the labor market across the Dutch Kingdom</p>	<ol style="list-style-type: none"> Optimize the cooperation and collaboration among stakeholders (government institutions, educational institutions, labor market) at the local, inter-island, and Kingdom level. Facilitate more streamlined and consistent support to the islands by improving the coordination and 	<ul style="list-style-type: none"> Establish regular consultations and networking sessions between education and the labor market to improve cooperation, strengthen partnership, and pinpoint and address bottlenecks. Stimulate regular consultation and collaboration among ministries/departments/public services (e.g., education, economic affairs, labor affairs, social affairs) to attain broadly supported joint labor market strategies, and effectively address issues in the education-labor market connection. 	<p>✓</p> <p>✓</p>	<p>✓</p> <p>✓</p>	<p>✓</p> <p>✓</p>	<p>✓</p> <p>✓</p>

Joint Labor Market Summary		Selected validation session recommendations	A U A	C U R	S X M	C N
Objectives/ Topics	Recommendations					
	collaboration among Dutch ministries.	+ Facilitate structural funding for investments and innovation in the education system.	✓	✓	✓	✓
3.	Establish a (semi) independent counseling organization on each island, tasked with connecting relevant labor market parties, analyzing key challenges, and supporting policy development and decision-making across the Kingdom.	<ul style="list-style-type: none"> • Increase the visibility and strengthen the role of the existing council/institution for education and labor market. Transform this entity into a strategic partner for education programs and research. • Establish a new independent council/advisory board for education and the labor market, tasked with analyzing and proposing solutions to challenges in the alignment between education and labor market, managing up-to-date data and indicators to support policymaking, and facilitating dialogue and collaboration among stakeholders within the Kingdom. 	✓			
				✓	✓	

Joint Labor Market Summary		Selected validation session recommendations	A U A	C U R	S X M	C N
Objectives/ Topics	Recommendations					
II. Alignment optimization Minimize labor market shortages and skills in strategic sectors.	1. Address labor shortages across strategic sectors by upgrading education programs and making them more attractive to students, and by increasing the attractiveness and rewards of working in sectors with labor shortages.	<ul style="list-style-type: none"> • Make working more attractive by facilitating fair(er) pay and employment terms, and by providing benefits that are in line with educational achievements. • Retrain/reskill workers to meet the demands of the labor market. 	✓	✓	✓	✓
	2. Upgrade digital literacy, cognitive skills, soft skills and other 21 st century skills at all education levels and for all age groups, by, e.g., promoting STEM education, and by establishing a "Digital Caribbean Academy," which	<ul style="list-style-type: none"> + Design, implement and enforce balanced and coherent labor market and immigration policies. + Facilitate career/job fairs, open houses, and social media use to inform students about career possibilities, and connect them with potential employers. + Research language policy/initiatives in education as it relates to job market requirements (e.g., Dutch language prerequisites for legal 	✓ ✓ ✓	✓ ✓	✓ ✓ ✓	✓ ✓ ✓

Joint Labor Market Summary		Selected validation session recommendations	A U A	C U R	S X M	C N
Objectives/ Topics	Recommendations					
	provides training on artificial intelligence (AI), automation, engineering, and technology.	government functions, justice related functions)				
III. High-quality data Establish robust systems to collect and manage high-quality education and labor market data.	<ol style="list-style-type: none"> 1. Establish robust centralized data collection and management systems, and a central registry of vacancies. 2. Facilitate more research on key education and labor market developments, as such facilitating the timely availability of key indicators for policy making. 	<ul style="list-style-type: none"> • Create a dashboard/platform that allows for the input of labor market needs, to facilitate speedy alignment of education offerings. • Use social media and/or a website to publish all job openings, and list information about the most important professions and roles in the labor market. • Facilitate the sharing of information, policy documents and best practices, and the increased use of digital tools. 	✓	✓	✓	✓
					✓	✓
			✓	✓	✓	✓

Joint Labor Market Summary		Selected validation session recommendations	A U A	C U R	S X M	C N
Objectives/ Topics	Recommendations					
<p>IV. Academic upgrading Increase the relevance, attractiveness, and accessibility of vocational and tertiary education.</p>	<p>1. Update and upgrade educational programs and courses to increase their attractiveness and accessibility, and their alignment with the skills demanded by the 21st century labor market (by e.g., incorporating digital literacy and STEM education).</p>	<ul style="list-style-type: none"> Increase the attractiveness and flexibility of education programs and courses (modular, hybrid, online), and the rewards/recognition provided for non-conventional educational achievements (completed modules, certificates, micro credentials). 	✓	✓	✓	✓
	<p>2. Improve the primary and secondary employment conditions in sectors and functions with a negative image/perception, to increase student enrollment levels.</p>	<ul style="list-style-type: none"> Facilitate more internships, work-study programs, and training opportunities for academic and vocational students. Provide career path guidance to students, and include 21st century skills in school curriculums (including soft skills, critical thinking, and financial literacy). Invest in the resources needed for technical programs and courses, and stimulate students 	<ul style="list-style-type: none"> Facilitate more internships, work-study programs, and training opportunities for academic and vocational students. Provide career path guidance to students, and include 21st century skills in school curriculums (including soft skills, critical thinking, and financial literacy). 	✓		✓

Joint Labor Market Summary		Selected validation session recommendations	A U A	C U R	S X M	C N
Objectives/ Topics	Recommendations					
	<p>3. Provide students with sufficient guidance and instructions to make proper career choices, and to prepare them for joining the labor market. Facilitate high-value on-the-job learning (Beroeps Begeleidende Leerweg (BBL)).</p> <p>4. Stimulate students and the current workforce to aim for their highest achievable qualification level possible.</p>	<p>at all levels to choose technical studies by improving wages and other benefits.</p> <p>+ Facilitate on-the job learning by training employers/stakeholders to provide high quality job shadowing.</p> <p>+ Facilitate the student-employee transition through entrepreneurial skills practicing, training using technology, and opportunities to experience workplace culture and values.</p>				<p>✓</p> <p>✓</p>
<u>V. Brain gain</u> Increase talent	<p>1. Conduct comprehensive research into the</p>	<ul style="list-style-type: none"> Reduce government red tape, and fight brain drain/promote brain mobility by investing in 	✓	✓	✓	✓

Joint Labor Market Summary		Selected validation session recommendations	A U A	C U R	S X M	C N
Objectives/ Topics	Recommendations					
cultivation, transfer, retention, and recovery.	underlying causes of brain drain, and implement policies to address brain drain/promote brain gain.	innovative education. Improve the attractiveness of local education institutions by offering high-quality education.				
	2. Implement policies designed to recover, develop and upgrade (existing) talent, and promote intergenerational knowledge transfer.	+ Promote a progressive mind-set in government institutions to facilitate the timely integration of new developments (e.g., AI) into the educational system.		✓		✓
	3. Encourage graduates and (young) professionals to return by providing attractive salary levels and benefits, subsidies on study loan repayments, tax incentives to returning individuals and/or to the companies that	<ul style="list-style-type: none"> • Improve the attractiveness of students returning by facilitating competitive salaries and benefits, personal & career growth opportunities, and payable housing. • Facilitate studying in the region, as well as collaboration with other regional communities. • Facilitate scholarship programs. 		✓	✓	✓

Joint Labor Market Summary		Selected validation session recommendations	A U A	C U R	S X M	C N
Objectives/ Topics	Recommendations					
	employ them, and by offering assistance with housing. 4. Increase regional educational opportunities.					
<u>VI. On-the-job and lifelong learning</u> Make on-the-job and lifelong learning more attractive and accessible.	1. Facilitate lifelong learning programs, and create opportunities to upskill and reskill employees, in line with labor market developments and requirements. 2. Implement policies designed to develop and upgrade knowledge, and promote intergenerational knowledge transfer.	<ul style="list-style-type: none"> • Simulate private investments in lifelong learning, and facilitate the integration and normalization of lifelong learning. • Increase the attractiveness for businesses to provide on-the-job programs and training (through rewards and acknowledgment). • Stimulate lifelong learning programs and initiatives, aimed at skills broadening/ deepening, and intergenerational knowledge sharing. 	✓	✓		✓
			✓	✓		✓

Joint Labor Market Summary		Selected validation session recommendations	A U A	C U R	S X M	C N
Objectives/ Topics	Recommendations					
	3. Stimulate employers to actively facilitate and support on-the-job learning (Beroeps Begeleidende Leerweg (BBL)). **					
	4. Offer more flexible/modular education to increase continued participation in education and skills upgrading.**					
		+ Stimulate older workers to continue working by increasing the attractiveness of working longer, and by providing more employment opportunities and guidance.	✓	✓		✓

* Aruba (AUA), Curaçao (CUR), Sint Maarten (SXM), Caribbean Netherlands (CN: Bonaire, Sint Eustatius, Saba).

** Overlaps with educational offering recommendation in section IV.

+ Extra recommendation provided by stakeholders during validation.

Figure 5 Overview 21st century skills



Source: SLO