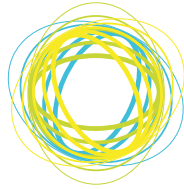




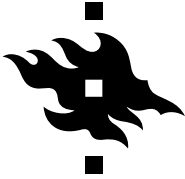
REPORT

Kajsa Ekroos, Maria Lima-Toivanen

**FINNISH RESEARCH,
HIGHER EDUCATION AND
INNOVATION COOPERATION
WITH LATIN AMERICA AND
THE CARIBBEAN: ROADBLOCKS
AND RECOMMENDATIONS FOR
FUTURE ACTION**



FinCEAL+



UNIVERSITY OF HELSINKI



This report is an output of the “*Developing Finnish Science, Technology and Innovation Cooperation between Europe, Africa, Asia and the LAC Region*” (FinCEAL) project, funded by the Ministry of Education and Culture and coordinated by Finnish University Partnership for International Development (UniPID). The report is the product of the authors, and the responsibility of the accuracy of the data, findings, interpretations and conclusions included in this report rests with the authors.

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EXECUTIVE SUMMARY

In recent years, there has been increasing political discussion on the importance of the Latin America and the Caribbean (LAC) regions in Finland. While education, research, technology and innovation have been mentioned as potential areas in which mutually beneficial cooperation between Finland and the LAC region has special growth potential, collaboration efforts have often been subject to a lack of both strategy and funding. In recent years, Finnish development cooperation programmes in the now mostly middle-income LAC region have ended and the focus has shifted strongly to trade and commercial relations, including education export. At the same time, the significant cuts made to national research, development and innovation funding have affected the ability of Finnish Higher Education Institutions (HEIs) and research institutes to operationalize cooperation potential, especially with partners from regions like LAC, which are not specifically prioritized by Finnish authorities.

On the positive side, a substantial amount of experience and knowledge have been gathered through Finnish involvement in the European Union and Community of Latin American and the Caribbean States (EU-CELAC¹) Science, Technology and Innovation (STI) policy dialogues, as well as through the various activities implemented and supported by the FinCEAL initiative (Developing Finnish Science, Technology and Innovation Cooperation with Europe, Africa, Asia and the LAC regions), which has been funded by the Ministry of Education and Culture since 2013.

In light of all the above, the aim of this report is to offer an updated overview on the policy context and state of Finnish higher education, research and innovation cooperation with the LAC region, as well as to offer suggestions for strengthening it. The specific objectives of the report are:

- To identify the barriers and opportunities related to cooperation with the LAC region from the perspectives of Finnish Government representatives and research and innovation funders, as well as the Finnish academic community, and to highlight those themes of collaboration deemed of special importance;
- To assess the Finnish STI and higher education policy and funding landscape concerning cooperation with the LAC region;
- To take stock of Finnish involvement in EU-CELAC STI and higher education cooperation as well as summarize recent trends on the Nordic level;
- To provide recommendations for the strengthening of Finnish cooperation with the LAC region.

Data collection for the report followed a qualitative approach consisting of semi-structured individual and group interviews with representatives of Finnish ministries, funding

¹ CELAC is the Community of Latin American and Caribbean states. Launched in 2010, the CELAC is a regional bloc of Latin American and Caribbean states. The organization encompasses all 33 sovereign LAC countries, representing roughly 600 million people. CELAC is a successor to the Rio Group (an international organization consisting of 23 Latin American and Caribbean countries created in 1986 in Rio de Janeiro) and CALC ("Cumbres América Latina y Caribe" - internal Latin American and Caribbean (LAC) states summits). CELAC has become the EU's counterpart for the bi-regional partnership process, including at summit level.

agencies and businesses, as well as an online questionnaire that collected inputs from the research community. The data shows that the main challenge for Finnish higher education and research institutions to operationalize and pursue long-term cooperation with LAC partners is the precarious funding landscape which is partly due to the lack of strategy and consistency in the implementation of the previously established plans at the political level, as well as weak articulation and communication between activities in different sectors and institutions. At the same time, Finnish organizations have networks and established frameworks in LAC upon which to build. The complementary nature of knowledge, skills and cooperation interests on both sides offer many untapped opportunities for example in topics related to environmental and social sustainability and digitalization among others. The United Nation's Agenda 2030 can be considered a natural framework for collaboration.

The main recommendation of this report is to develop a more comprehensive national roadmap concerning LAC cooperation, with coherent support mechanisms to enable the translation of existing plans and agreements into concrete action. The recently established Forum for Internationalization of Finnish Higher Education and Research and Team Finland Knowledge Network are positive developments that offer potential to address some of the issues mentioned, especially if efforts are made to improve knowledge sharing practices between the academic community and the decision makers.

CONTENTS

Executive summary	3
Acknowledgements	6
List of figures and tables	7
Acronyms and abbreviations	7
1. Introduction	9
2. Contextual overview and assessment of the policy landscape	12
2.1. Background	12
2.2. National policy and funding context for research, innovation and higher education cooperation with the LAC region	15
2.2.1. Remarks on the national policy and funding context	23
2.3. EU–Latin America and Caribbean relations	24
2.4. EU–CELAC cooperation in STI and higher education	26
2.4.1. EU–CELAC Joint Initiative for Research and Innovation	26
2.4.2. EU–CELAC Academic Summit	28
2.4.3. EU–CELAC Regional Development and Innovation cooperation	29
2.4.4. Remarks on Finnish involvement in EU–CELAC cooperation	30
2.5. Nordic–LAC cooperation	30
2.5.1. Remarks on Nordic–LAC cooperation	32
3. Analysis of stakeholder experiences and views on LAC cooperation	34
3.1. Barriers to cooperation and potential solutions	34
3.1.1. National policy coherence and continuity	34
3.1.2. Funding and human resources	36
3.1.3. Information sharing, visibility and partnership building	40
3.1.4. Cultural differences	41
3.2. Cooperation opportunities	42
3.2.1. Themes and types of cooperation	42
3.2.2. Education export	45
4. Conclusions	48
4.1. Recommendations	52
References	54
Appendices	58

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LIST OF FIGURES AND TABLES

Figure 1.	Objectives of FinCEAL Plus Continuation (2017-2018)
Figure 2.	The Ministry of Education and Culture's Internationalization strategy for higher education and research
Figure 3.	Finnish representation and R&I cooperation initiatives in the LAC region
Figure 4.	Potential topics for research and innovation cooperation
Table 1.	Finnish STI and higher education actors and activities with LAC countries
Table 2.	SWOT Analysis: STI Cooperation between Finland and the LAC region

ACRONYMS AND ABBREVIATIONS

ACCESS	Academic Collaboration Chile Sweden
AKA	Academy of Finland
ALCUE Net	Latin America, Caribbean and European Union Network on Research and Innovation
ANEP	National Administration of Public Education, Uruguay
ANII	National Research and Innovation Agency, Uruguay
BF	Business Finland (merger of Tekes and Finpro from January 2018)
Capes	Coordination for the Improvement of Higher Education Personnel
CNPq	National Council for Scientific and Technological Development
CELAC	Community of Latin American and Caribbean States
COLAC	Working Party on Latin America and the Caribbean
Cimo	Centre for International Mobility (now part of Finnish National Agency for Education)
CNPq	The Brazilian National Council for Scientific and Technological Development
CONFAP	National Council of State Research Support Foundations, Brazil
CONICYT	The Chilean National Commission for Scientific and Technological Research
CRA	Common Research Area
DG REGIO	Directorate-General for Regional and Urban Policy
DG RTD	Directorate General for Research and Innovation
EC	European Commission
ECLAC	Economic Commission for Latin America and the Caribbean
EU	European Union
EU-LAC	
Foundation	European Union – Latin America and Caribbean Foundation
EDUFI	Finnish National Agency for Education
ELAN Network	European and Latin American Technology Based Business Network

EULARINET	European Union – Latin American Research and Innovation NETWORKS
ERA-Net LAC	Network of the European Union, Latin America and the Caribbean Countries on Joint Innovation and Research Activities (currently EU-CELAC Platform for Funding Agencies)
FAPESP	The São Paulo Research Foundation
FinCEAL	Developing Finnish Science, Technology and Innovation Cooperation with Europe, Africa, Asia and the LAC region (project)
H2020	Horizon2020, European Framework Programme for Research and Innovation
INCOBRA	Increasing International International Science, Technology and Innovation Cooperation between Brazil and the European Union (H2020 project)
INCO-NET	Projects funded through the European Commission’s 7th Framework Programme which supported Europe’s bi-regional science and technology policy dialogues
JIRI	Joint Initiative for Research and Innovation
LA	Latin America
LAC	Latin America and the Caribbean
LEADERSHIP	Latin America-Europe Advanced Dialogues to Enhance Information and Communication Technologies Research and Innovation Partnership
NMP-DeLA	Nanosciences, Nanotechnologies and New Production Technologies Deployment in Latin American Countries
MoU	Memorandum of Understanding
R&D	Research and Development
R&D&I	Research, Development and Innovation
RIS	Regional Innovation System
SFIC	Strategic Forum for International Science and Technology Cooperation at the European Commission
SOM	Senior Officials Meeting
S3	Smart Specialization Strategies
STI	Science, technology and innovation
STINT	Swedish Foundation for International Cooperation in Research and Higher Education
T-AP	Trans-Atlantic Platform for the Social Sciences and Humanities
TFK	Team Finland Knowledge
UHR	Swedish Council for Higher Education
UN	United Nations
UniPID	Finnish University Partnership for International Development
VTT	Technical Research Centre of Finland Ltd

1. INTRODUCTION

In recent years, there has been increasing political discussion on the importance of the Latin America and the Caribbean regions (LAC²) in Finland. There have been frequent high-level visits and delegations between Finland and the countries in the region, as well as a number of memorandums of understanding (MoU) signed, and reports written focusing on different aspects of collaboration with Latin America published by the Finnish Ministries as well as higher education institutions (HEIs). It has been evident for some time that interest in cooperation on both sides is on the increase. Education, research, technology and innovation have often been mentioned as potential areas in which mutually beneficial collaboration has special growth potential. However, Finnish policy priorities and the funding landscape, as well as the overall premises for international research, higher education and innovation collaboration, have recently undergone substantial changes. While Finnish development cooperation programmes in the now mostly middle-income LAC region have ended, the focus has shifted strongly to trade and commercial relations. At the same time, significant cuts to national research, development and innovation funding have affected the ability of Finnish HEIs and research institutions to operationalize the cooperation potential, especially with partners from regions like LAC, which are not specifically prioritized by Finnish authorities.

In light of all the above, it is the aim of this report to offer an updated overview on the policy context and state of Finnish higher education, research and innovation cooperation with the Latin American and the Caribbean regions, and to offer suggestions that would help to turn agreements and plans into concrete actions. The emphasis of the report will mostly be on research, and to a lesser extent, innovation and higher education cooperation. Business will be dealt with only when relevant to the main subject of the report, and then mostly in relation to Finnish education export activities. It should also be noted that the focus of this report is on shedding light on the Finnish science, technology and innovation (STI) policy landscape, as well as the views and experiences of the Finnish research community. Assessing collaboration interests and needs from the perspective of stakeholders in the LAC region is outside the scope of this report, although it would certainly merit further attention in the future. The specific objectives of the report are:

- To identify the barriers and opportunities related to cooperation with the LAC region from the perspectives of Finnish Government representatives and research and innovation funders, as well as the Finnish academic community, and to highlight those themes of collaboration deemed of special importance;
- To assess the Finnish STI and higher education policy and funding landscape concerning cooperation with the LAC region;
- Take stock of Finnish involvement in EU-CELAC STI and higher education cooperation as well as summarize recent trends on the Nordic level;

2 The acronym LAC is being used to refer to these two regions as a whole in conformity with the current EU policy dialogue. Whenever it is necessary to make a distinction, the authors will refer to either Latin America or the Caribbean individually.

- To provide recommendations for the strengthening of Finnish cooperation with the LAC region.

To date, the most extensive publication produced in Finland regarding cooperation with LAC is the report titled *“Educational, scientific and cultural cooperation with Latin America and the Caribbean – status report and a proposal for strategic measures”*, carried out by Professor Martti Pärssinen and Dr. Eeva Sippola and commissioned by the Ministry of Education and Culture in 2012. More recently, Kitinoja and colleagues (2018) from the Seinäjoki University of Applied Sciences have presented new perspectives in their publication titled *“Development of cooperation in Latin America: Collaboration in Education, Research and Business – Opening up New Opportunities”*. On a more general note, academic cooperation is also dealt with in *Finland’s Latin America and Caribbean Action Plan*, published by the Ministry for Foreign Affairs in 2013. Although these publications have drawn attention to the growing importance of the LAC region on a global scale and suggested necessary measures that Finland should take in order to enhance and update cooperation to better correspond to the significance of the region, there has been little follow-up. Furthermore, a substantial amount of experience and knowledge have been gathered through Finnish involvement in the EU-CELAC STI policy dialogues, as well as through the various activities implemented by the FinCEAL initiative (Developing Finnish Science, Technology and Innovation Cooperation with Europe, Africa, Asia and the LAC region) that the Ministry of Education funded between 2013 and 2018. There have also been some new developments on the Nordic level, which will be briefly discussed. It is our hope that the synthesis and recommendations presented in this report will give new insight for policy discussions concerning academic and innovation relations with the LAC region. A concise policy brief based on this report has also been published, and is available in Appendix 4.

The data gathered for this report followed a qualitative approach and consisted of semi-structured individual and group interviews and an online questionnaire, besides a review and analysis of existing policy documents. Nine interviews were carried out between April 2017 and August 2018 with representatives of Finnish Ministries, funding agencies and business development organizations. The interviews were recorded with permission and transcribed. Some of the interviewees provided additional information by email. The interview outline is available in Appendix 1, and the list of interviewees in Appendix 2. Furthermore, input from the research community was gathered through an online questionnaire that was open between July and November 2017 and was widely distributed to higher education and research organizations in Finland. Through the questionnaire, 32 anonymous responses were obtained from experts representing 13 different institutions and various scientific fields (natural, engineering, medical, agricultural and social sciences and including business and innovation). Respondents included PhD candidates, post-docs, senior scientists, full professors and a few administrators. The data analysis was based on an inductive approach and drew on the interview transcripts and questionnaire answers, which were coded and categorized using the Atlas.ti software. In addition, transcripts from 11 focus group interviews (six academics

and seven representatives of public organizations altogether) conducted by UniPID³ Project Manager Melissa Plath in early 2018 as part of the FinCEAL Feasibility Study were used as supplementary data due to their relevance to the subject area of the policy report. Furthermore, an interview with the chairman of the Finnish-Latin American Trade Association, carried out in April 2016 under the scope of the project “European & Latin American Technology Based Business Network” (ELAN Network) was also used as supplementary data.

After the introduction, the report is divided into three main sections:

- Contextual overview and assessment, in which the environment in Finland, EU and the Nordic countries with regard to STI cooperation with the LAC regions is presented and analysed;
- Analysis, which discusses the findings from the interview and questionnaire data;
- The Conclusions chapter, where a synthesis of the main findings and recommendations will be offered.

3 UniPID (Finnish University Partnership for International Development) is a network of Finnish universities, which supports the strategic global responsibility objectives of these universities. UniPID strengthens and advances the interdisciplinary education, research, and societal impact of universities on global development. Current members include Aalto University, Åbo Akademi University, University of Eastern Finland, University of Helsinki, University of Jyväskylä, University of Lapland, University of Oulu, University of Tampere, and University of Turku.

2. CONTEXTUAL OVERVIEW AND ASSESSMENT OF THE POLICY LANDSCAPE

This chapter provides background information regarding the recent developments in the subject area of the report, followed by an overview of the current national policies for cooperation and the institutional landscape in regard to Finnish organizations' STI activities with LAC region. Afterwards, the EU-CELAC STI cooperation framework and current developments in the Nordic context will be presented. The sections focusing on the national, EU and Nordic contexts will each be followed by a concise assessment and suggestions.

2.1. BACKGROUND

Up-to-date reports⁴ on the current political and economic situation in the LAC region are widely available so this background information will not be repeated here. It is crucial to note, however, that Latin America and the Caribbean cannot be seen as a singular region, but as a rapidly changing and vast geographical area, with different demographics, stages of economic development, languages and cultures as well as varying traditions of international cooperation in the subject areas of this report. The importance of understanding the heterogeneous nature and complex realities of the societies in the 33 countries that compose the region cannot be stressed enough.

According to the Economic Commission for Latin America and the Caribbean (ECLAC), investment in research and development (R&D) in the LAC region has traditionally been lower than in other regions of the world, but has improved during the past decade. "In 2013, LAC countries spent on average 0.75% of GDP on R&D but the ratio between the highest and lowest investing countries as a proportion of GDP is 25:1, demonstrating the great heterogeneity of the region." (ECLAC, 2016). The biggest economies in the region, Brazil and Mexico, have the strongest concentration of research and innovation (R&I) capacity, and together with Argentina, they concentrate 91% of the regional investment in research. According to the Roadmap for EU-CELAC S&T cooperation (2017), "[t]he CELAC countries apply a broad array of policies and incentive mechanisms to develop R&I, and few countries have developed agencies dedicated to the financing of R&I." Most LAC countries are now in the middle-income category, which presents its own unique challenges, such as the so-called "middle-income trap". Improving access and quality of education, as well as implementing better innovation policies, are topical issues in which international cooperation can play an important role.

Finnish institutions have cooperative ties in science, technology and higher education with the LAC region in multiple fields (see section 3.2.1) but the data gathered for

4 See for example: The EU-Latin American Strategic Partnership: state of play and ways forward, 2017; Kitinoja et al., 2018; Maaailman markkinat, 2017; OCDE/CAF/CEPAL, 2018; World Economic Outlook Update, 2018; Yasunaga Kumano, 2018

this report indicates that collaboration efforts have been in many cases subject to a lack of both strategy and funding. Moreover, the amount and scope of cooperation does not respond to the growing global importance of the LAC region. Activities in different sectors and different Finnish institutions have not always been sufficiently articulated. Pärssinen and Sippola argued in their 2012 report that it is vital for Finland to set clear objectives for the administrative branches of the Ministry of Education and Culture until 2022 in order to build a strong partnership in education and research with one of the fastest developing regions of the world. The strategic measures recommended in the report were grouped into three categories:

1. Improving communications and coordination in Finland, Latin America and the Caribbean.⁵
2. Strengthening knowledge of the Spanish and Portuguese languages and LAC cultures in Finland.⁶
3. Supporting sector-specific cooperation in the fields of education, science and culture.⁷

The Latin America and Caribbean Action Plan by the Ministry for Foreign Affairs also highlights potential areas of research collaboration, and recommends increasing student and researcher mobility between Finland and the LAC region.

Following the publication of the report commissioned by the Ministry of Education and Culture in 2012, and as a means to mobilize the Finnish academic community in the framework of the EU-CELAC STI policy dialogue, the Ministry funded the first phase of the FinCEAL initiative in 2013–2014. FinCEAL was envisioned by the Ministry as supporting Finnish involvement in the bi-regional STI policy dialogues, and as offering concrete support for the Finnish scientific community's research and innovation cooperation with so-called third countries, first targeting Africa and Latin America and the Caribbean, and from 2015 onwards, also Asia. The initiative has been funded by the Ministry in three consecutive project cycles: FinCEAL (2013–2014), FinCEAL Plus (2015–2016) and FinCEAL Plus Continuation (2017–2018) and it has been coordinated by the Finnish University Partnership for International Development (UniPID) network, with the University of Helsinki Department

5 Specific recommendations under this category included 1) Establishing a communication and research network related to Latin America and the Caribbean, which would organize "LAC coordination days" to gather relevant stakeholders together; 2) Supporting Finnish institutions' information dissemination activities in LAC including translation services; 3) Improving communication and coordination between different ministries in Finland, strengthening Team Finland activities and information between Finnish embassies in the LAC region and other national stakeholders; 4) Separating LA as a region of its own in national statistics.

6 Specific recommendations under this category included 1) Improving the offer of courses of Spanish and Portuguese language and LA cultures in all levels of education, with special emphasis on Portuguese and Brazilian culture in higher education institutions; 2) Enhancing the numbers of teachers of Spanish and Portuguese languages in Finnish institutions; 3) Strengthening the role of Latin American Studies in universities and considering establishing an assistant professorship in Brazilian Studies at the University of Helsinki.

7 Specific recommendations in this category included 1) Enhancing educational cooperation between Finland and the LAC region in different areas such as student and teacher mobility, traineeships, double degree programmes and education export, in which LAC should be adopted as a priority region; 2) Improving cooperation between the Ministry of Education and key stakeholder institutions, and assuring that a portion of development cooperation funds are directed to education cooperation through improved coordination between Ministries; 3) Developing long-term targets for educational cooperation together with different national stakeholders, and establishing an implementation plan and evaluation mechanism to assess the impact of activities.

of Forest Sciences in charge of the management of the LAC component of the project. The FinCEAL Steering Committee⁸ has guided the project in ensuring the national coordination of activities. FinCEAL has cooperated closely with different Team Finland actors, but has not been considered part of the network.

FinCEAL⁹ has attempted to address some of the propositions presented in Pärssinen and Sippola's report (2012), namely, improving information flow and coordination between different national stakeholders and activities relating to the LAC region, supporting network creation in Finland and abroad for Finland-based¹⁰ scientists whose work is related to the LAC region, and offering concrete support for researcher mobility and partnership building between Finnish and LAC scientists through its small-scale grant scheme.¹¹ Figure 1 shows the objectives of FinCEAL Plus Continuation (2017–2018). In concrete terms, the grants have facilitated a large number of research cooperation activities, including the establishment of new partnerships, joint publications and events, sharing of data sets, research visits and PhD student mobility as well as proposal writing and planning of new collaborative projects.

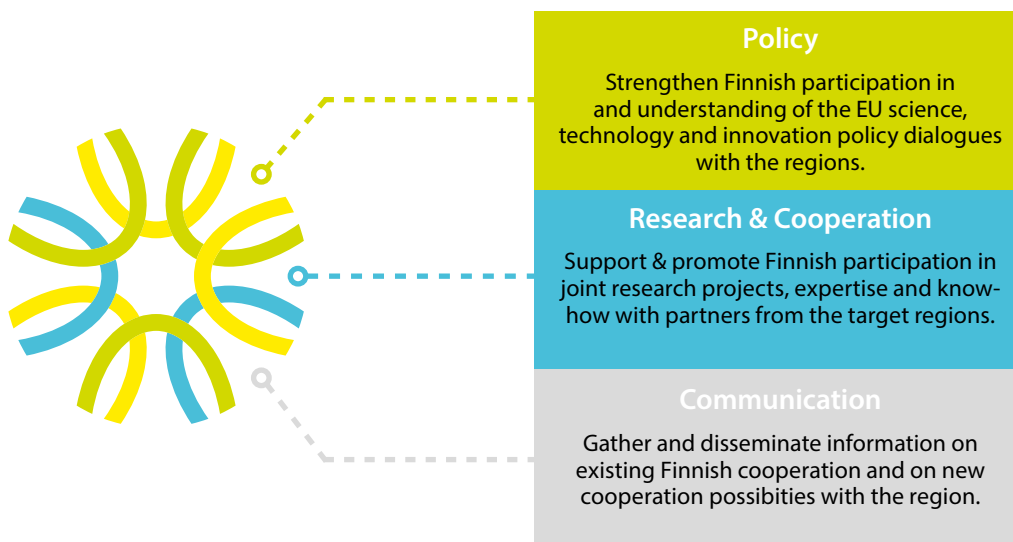


Figure 1. Objectives of FinCEAL Plus Continuation (2017–2018)

8 The Steering Committee has consisted of representatives of the following organizations: Ministry for Foreign Affairs, Ministry of Employment and the Economy, Academy of Finland, Business Finland (formerly Tekes), Universities Finland (UNIFI), The Rector's Conference of Finnish Universities of Applied Sciences (Arene), The National Agency for Education (EDUFI), as well as the Ministry of Education and Culture as an observer member.

9 More information on FinCEAL's contribution is available on the FinCEAL and FinCEAL Plus Impact Booklets published on the UniPID website: <https://issuu.com/finceal/docs/finceal-2013-2014/18?ff=true&e=16538141/12883358> (project period 2013–2014) and <https://issuu.com/finceal/docs/finceal-plus-2016/1?ff=true&e=16538141/43599527> (project period 2015–2016) as well as the FinCEAL External Assessment published in autumn 2018: https://drive.google.com/file/d/1fMYGdxMj97z7yS1j8r-Sef-CL1z4O1S_/view

10 The term 'Finland-based' is used here to indicate that a large number of researchers in Finnish institutions are not Finnish by nationality. For the sake of simplicity, 'Finnish' is later used in the same context, meaning that the researcher is part of the Finnish research community regardless of nationality

11 Between 2013 and 2018, FinCEAL LAC awarded 194 grants for a total of approx. 394 000€ to members of the Finnish science and research community. Beneficiaries were based across the country in 12 different universities, six universities of applied sciences and three research institutes.

In addition, FinCEAL has organized a wide variety of national networking events for information dissemination, as well as international events in Chile, Sweden, Argentina and Panama; established the *Infobank project database* on research conducted on or with partners from the three target regions; and contributed to better information sharing on cooperation and funding opportunities through the FinCEAL newsletter, project website, mailing lists and social media platforms. FinCEAL has also acted as a policy contact point between the Finnish research community and policy makers, actively commenting on policy documents sent by representatives of different ministries, and gathering the scientific community's comments on policy papers when relevant, as well as being involved in the bi-regional STI policy dialogues with the LAC region through the Joint Initiative for Research and Innovation (JIRI) together with other Finnish stakeholders. To ensure policy coherence with the EU-CELAC STI priorities, the focus areas for FinCEAL LAC have been renewable energies, bioeconomy, ICT for societal challenges, climate change and biodiversity, health, and in addition, from 2017 onwards, sustainable urbanization and research infrastructures. Although FinCEAL LAC activities have had a relatively wide national outreach, the thematic focus areas have limited to some extent the possibilities of some researchers actively working with LAC to benefit from the grant scheme, for example. Another hindrance has been the short project cycles, which have impeded more strategic and long-term planning of activities and establishing a clear role for FinCEAL in relation to Team Finland actors.

2.2. NATIONAL POLICY AND FUNDING CONTEXT FOR RESEARCH, INNOVATION AND HIGHER EDUCATION COOPERATION WITH THE LAC REGION

The aim of this section is to present an overview of the current national policies for cooperation and the institutional landscape in regard to Finnish organizations' STI activities with LAC region. Key organizations, guiding policy documents, activities and representation in the LAC region will then be summarized in Table 1, followed by a graphic representation of Finnish presence and R&I cooperation initiatives in the LAC region (Figure 3). Comments and suggestions will be provided in section 2.3. For a mapping of national funding mechanisms, see Appendix 3a.

The information presented in this section is drawn from official policy documents, the websites of the institutions mentioned and from the interviews that were carried out for this report. It should be noted that it was not possible to reconfirm all the details provided in this section, and any eventual inaccuracies must be ascribed only to the authors.

Finnish R&D&I policy

The Research and Innovation Council chaired by the prime minister published its vision and roadmap for 2030 in late 2017, defining a common direction for Finnish R&D&I policies and key measures to be taken in both the short- and long-term. According to the roadmap, achieving the vision of Finland as the most attractive and competent environment for experimentation and innovation by 2030 is based on focused measures to ensure a sufficient competence base, growth ecosystems and further

internationalization. The roadmap emphasizes the importance of generating solutions for global challenges through R&D&I activities and responding to international demand. On internationalization, the roadmap specifically emphasizes the need to increase the mobility of R&D&I staff, as well as enhance Finnish experts' involvement in the best global networks (Research and Innovation Council Finland, 2017). The roadmap does not determine any specific regional focus.

Foreign and development policy

Finnish relations with the LAC region have been changing since the early 2010s. Development policy has focused on the most fragile countries in Africa and Asia, and consequently, Finnish development cooperation programmes in the now mostly middle-income LAC region have closed down in recent years. At the same time, the significant cuts made to development funding have further sped up this change, including funding for development research and capacity building projects in the Global South. Since the Government change in 2015, the overarching trend in Finnish relations with LAC (which applies to other regions as well) is an increasing emphasis on advancing Finnish business interests. Finland's Latin America and Caribbean Action Plan (Ministry for Foreign Affairs, 2013) provided an overview of existing political, economic, cultural and scientific cooperation. The overall aims for developing cooperation between Finland and the LAC region were also stated in the Action Plan from 2013, although in very general terms. Implementation of the Plan and follow-up is not mentioned, and the Plan has not been updated since its publication. According to the representative of the Ministry interviewed, the work of the Ministry for Foreign Affairs and the Finnish Embassies in the region is governed by annual plans and mid-term plans that consist of more concrete targets than those presented in the Action Plan from 2013. It seems evident, however, that one reason behind the lack of follow-up relates to the substantial shifts in policy priorities after the Government change in 2015.

Internationalization policy for research and higher education

Following the global trend of seeing education as a marketable product, Finland's educational policy has also been re-oriented in the past decade, leading to the publication of the Finnish education export strategy in 2010 (Ministry of Education and Culture). In addition, tuition fees for non-European/ European Economic Area students training in Finland were adopted in 2017. Latin America has been identified as one of the priority regions¹² in the national education export growth program "Education Finland",¹³ which targets private companies, vocational institutions, and higher education establishments.

The Ministry of Education and Culture published its new internationalization strategy for higher education and research "Better together for a better world" in late 2017. The

12 Alongside China, South East Asia and the Gulf region.

13 Education Finland builds on Finpro's earlier Future Learning Finland cluster. Education Finland is funded jointly by the Ministry of Employment and Economic Affairs and the Ministry of Education and Culture, and is coordinated by EDUFI since early 2017. Some successful case examples from the LAC region are already available.



Figure 2. The Ministry of Education and Culture's Internationalization strategy for higher education and research (*Better together for a better world*, 2016)

strategy includes seven goals¹⁴ (see Figure 2), three of which are of particular relevance in relation to the LAC region: attraction of experts, education export, and the Team Finland Knowledge Network (TFK)¹⁵ that was launched in 2018. The TFK aims to support the other strategic goals such as enhancing the export of Finnish educational know-how, supporting Finnish education and research cooperation with chosen priority countries and regions, as well as increasing awareness of Finland as an attractive study and research destination. The Latin American node of the Team Finland Knowledge network is being established at the Embassy of Finland in Buenos Aires, where the TFK advisor works closely with other Team Finland representatives in the region. As part of the new strategy, the Ministry of Education and Culture also established the Forum for internationalization of Finnish higher education and research ("Korkeakoulutuksen ja tutkimuksen kansainvälisten asioiden foorumi") to support inter-institutional discussion on internationalization issues at the national level.

14 1. Greater international attraction through focusing on the latest science and leading-edge research. 2. Finland is the home of high-quality education. 3. Momentum for the export of Finnish competence. 4. A warm welcome to Finland. 5. Finnish message is heard internationally. 6. Bridgeheads in the world. 7. Greater involvement of Finnish experts abroad and alumni educated in Finland.

15 Network nodes are being established in China, Singapore, North America, Sub-Saharan Africa, India, Russia and Spanish-speaking South America.

Support for higher education cooperation and capacity building

The Finnish National Agency for Education¹⁶ (EDUFI, which includes the Centre for International Mobility, previously called Cimo) has supported cooperation in higher education between Finland and Latin America through its different programmes in the past decades. Cimo's LAC cooperation has focused mostly on Brazil, Chile, Argentina, Mexico and Peru. However, many previous programmes, such as a staff exchange programme between Finland, Argentina and Chile, have ended or been reduced to a minimum, as is the case with the Higher Education Institutions' Institutional Cooperation Instrument (HEI-ICI)¹⁷. Higher education cooperation between Finnish and LAC institutions was previously supported through HEI-ICI but Finnish development cooperation is focusing now only on the least developed countries, as well as drastic funding cuts, have meant that the LAC region is no longer a priority. EDUFI also supports Finnish graduates' traineeships in the LAC region and promotes student exchanges¹⁸.

EDUFI awards a small number of doctoral scholarships, mostly to Mexican and Brazilian doctoral students, through the Government Scholarship Pool and the EDUFI Fellowship programme. EDUFI has previously signed MoUs with the Coordination for the Improvement of Higher Education Personnel (Capes) and the National Council for Scientific and Technological Development (CNPq) in Brazil, but these have not led to concrete cooperation. Recent developments include a MoU with the Uruguayan National Board of Public Education (ANEP) and the National Research and Innovation Agency of Uruguay (ANII) signed in 2017, which is expected to lead to increased doctoral student exchanges between Finland and Uruguay. More information on higher education cooperation is available from the *EDUFI website* and from Kitinoja et al, 2018.

Research funding

The Academy of Finland (AKA) has named two priority countries for cooperation in the LAC region: Brazil and Chile. Bilateral contracts have been established with three research funding agencies: CNPq and the São Paulo Research Foundation (FAPESP) in Brazil, and the National Commission for Scientific and Technological Research (CONICYT) in Chile. The priority themes for cooperation with LAC countries have been biodiversity, bioeconomy, sustainable energy, nanotechnology, materials, education and mineral resources. AKA's LAC collaboration has previously been relatively active. Five successful bilateral calls were organized with CONICYT between 2007 and 2015, and five with CNPq and FAPESP between 2008 and 2014. However, bilateral calls are no longer being planned as AKA is increasingly focusing on multilateral cooperation in its relations with the LAC region.

16 EDUFI is subordinate to the Ministry of Education and Culture and its tasks and organization are set in the legislation. It originated from the merger of the Finnish National Board of Education and Centre for International Mobility (Cimo).

17 In the latest HEI ICI funding call organized in 2016, the Ministry for Foreign Affairs in Finland granted a total of € 12 million euros to development cooperation projects carried out by higher education institutions (HEIs) in 2017–2020. Out of the 20 projects that received funding in the latest call, only 1 one is implemented in the LAC region (Peru and Colombia).

18 Only about 3% (>300) of Finnish exchange students chose the LAC region as their destination in 2016, making the region one of the least popular destinations for exchange studies. At the same time about 2% (~230) of incoming exchange students were from Latin America and roughly 500 Latin American degree students studying in Finnish institutions were from the LAC region. It is too early to say how student exchanges from the LAC region to Finland will be affected by the implementation of tuition fees for non-EU/EEA students in 2017.

The Academy has been involved in three multilateral EU-funded projects: European Union – Latin American Research and Innovation Networks (EULARINET, 2008-2012), ERANet-LAC (2013–2017, currently called EU-CELAC Platform) and the Trans-Atlantic Platform for the Social Sciences and Humanities (T-AP, 2013–2016). The latest ERANet-LAC call was particularly popular among Finnish research groups¹⁹. The EU-CELAC Platform and T-AP networks of funding agencies have continued to exist beyond the scope of their respective funding periods. At the time of writing this report, T-AP had an open call focusing on social innovation but no information was available regarding upcoming EU-CELAC Platform calls. According to the representatives of AKA, the earlier bilateral cooperation has paved the way for the Academy's participation in the aforementioned multilateral EU projects, and Finnish researchers applying for ERANet-LAC or T-AP funds have also been able to utilize existing networks in the region. Moreover, the Brazilian Science without Borders programme, the research component of which AKA coordinated in Finland, temporarily increased researcher mobility between Brazil and Finland, but was effectively suspended in 2015.

Business and innovation funding and Team Finland

Business Finland has not had a specific plan or strategy towards the LAC region in terms of STI development but it is now developing an approach (no public information has yet been disclosed) which will include LAC-focused activities. There have been prior attempts at establishing bilateral cooperation between the then Tekes and the Financing Agency for Studies and Projects (FINEP) but the MoU expired before any concrete results were achieved. Through the Business with Impact (BEAM) programme, Business Finland has been supporting business development of Finnish small and medium enterprises (SMEs) in emerging and developing economies, which potentially includes LAC countries. According to the BEAM programme manager, interest from companies towards the LAC region has been relatively low due to lack of resources and companies having other geographical priorities²⁰.

In addition, Team Finland²¹ representation and services in the LAC region are being strengthened after the merger of Tekes and Finpro into Business Finland. At the time of writing this report, Business Finland had representation in Brazil, Chile, Peru (including Colombia) and Mexico (including Central America and the Caribbean). The most important Team Finland sectors and programmes in LAC region are education, digitalization (connectivity and Internet of Things), cleantech, bioeconomy and mining.²² The new TFK advisor is expected to cover the whole Latin American region

19 Detailed statistics not available at the time of writing the report.

20 Specific information on the geographical focus of the BEAM projects was not available.

21 Team Finland is a network of public sector actors providing internationalization services. The network consists of the Ministry of Economic Affairs and Employment, Ministry for Foreign Affairs, Ministry of Education and Culture, Business Finland (Finpro and Tekes merged), Finnvera, Tesi (Finnish Industry Investment), Centres for Economic Development, Transport and the Environment, Finnish Patent and Registration Office, Finnish-Russian Chamber of Commerce, Finnish-Swedish Chamber of Commerce, VTT Technical Research Centre of Finland, Finnfund, Finnpartnership and Finnish Cultural and Academic Institutes.

22 Mexico and Chile are focus countries of Smart Energy and Connectivity and Intelligent Industry programs. Brazil and Argentina are also focus countries of the latter one. Brazil is a priority country also in Bio and Circular Economy program. Chile is a focus country in the New Space Economy program. There has been development of the Colombian market for Finnish companies in the cyber security sector.

in close cooperation with Team Finland representatives. The Ministry for Economic Affairs and Employment has also had some involvement in LAC, especially Chile, with the aim of advancing Finnish business interests in the region. Figure 3 shows Finnish cooperation projects and official representation in LAC.

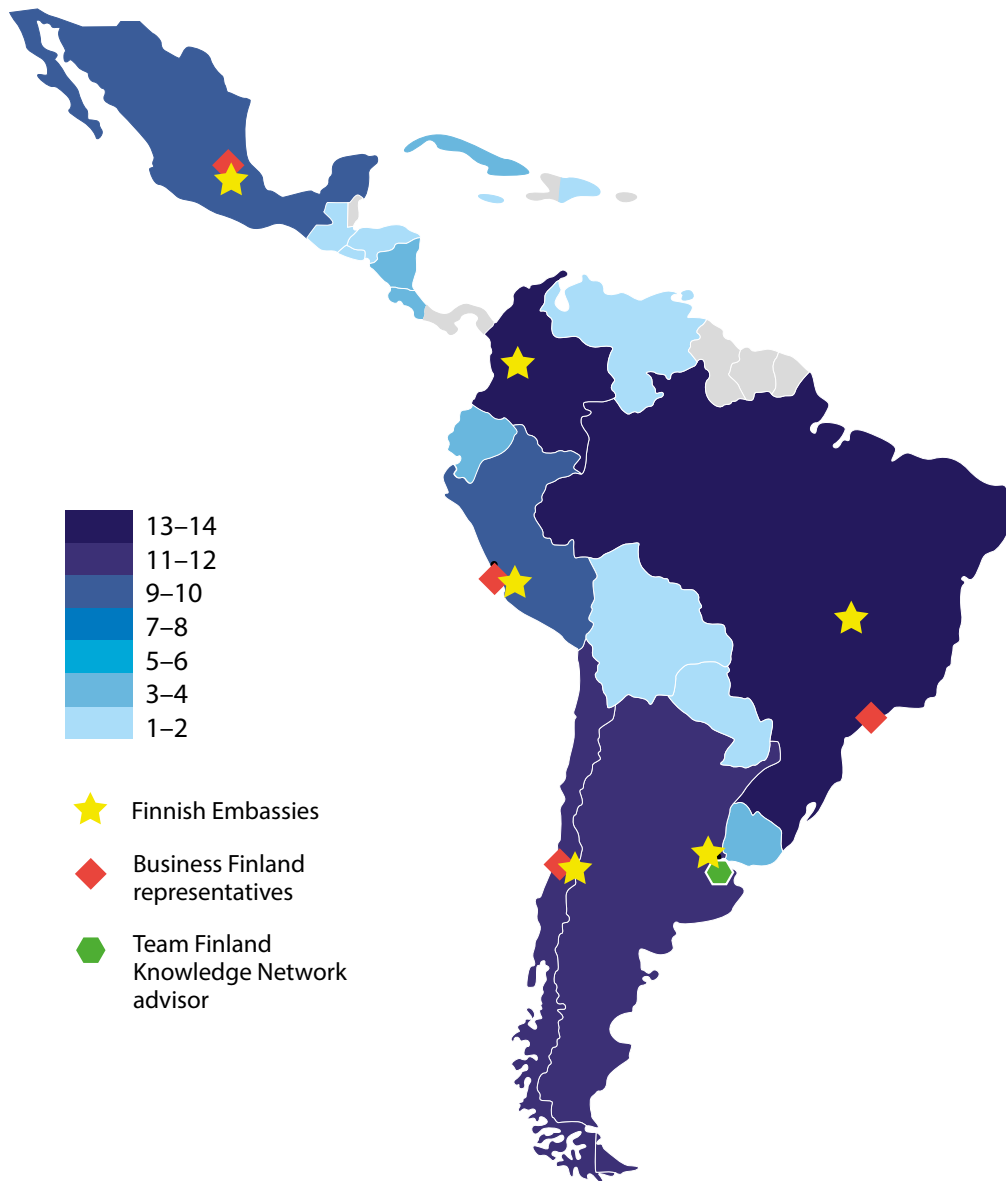


Figure 3. Finnish institutions' research or capacity building cooperation, Finnish Embassies and Team Finland representatives in LAC. Finnish institutions' research or capacity building cooperation is indicated in the map in blue. Color intensity correlates to how many times the country was mentioned by respondents of the online questionnaire. The illustration is by no means exhaustive, but aims to give an idea of the most prominent cooperation countries. The Roving Ambassador in the Caribbean is not marked as he is based in Helsinki.

Table 1. Finnish STI and higher education actors and activities with Latin America and the Caribbean countries

Institution	Policy focus or mission	Strategy document	Agreements and activities in LAC	Presence in LAC
Ministry for Foreign Affairs	<p>Foreign and security policy, trade policy and development policy as well as international relations in general.</p> <p>Foreign and security policy: To promote international stability, peace, democracy, human rights, the rule of law and equality</p> <p>Development policy: To support developing countries' efforts to eradicate poverty and inequality and promote sustainable development</p>	<p>Action Plan for Latin America and the Caribbean (2013)</p> <p>Annual plans and mid-term plans</p> <p>Government Report on Development Policy (2016) and Agenda 2030 – Sustainable Development Goals</p>	<p>Investment protection agreements and double taxation treaties</p> <p>EU-level: Involvement in Working Party on Latin America and the Caribbean (COLAC)</p>	<p>Embassies in Argentina (accredited to Uruguay and Paraguay), Brazil, Chile, Colombia (accredited to Venezuela and Panama), Mexico (accredited to Central America) and Peru (accredited to Bolivia and Ecuador) as well as a roving ambassador in the Caribbean</p>
Ministry of Education and Culture	<p>Higher education policy: To develop HEIs as an internationally competitive entity where each institution also flexibly to regional needs.</p> <p>Science policy:</p> <ul style="list-style-type: none"> To raise the international standard as well as the knowledge and competence base of Finnish science, and to increase the innovation capacity in the national economy Bolster the research infrastructure Safeguard the openness of research and science Step up internationality, which in turn improves quality 	<p>Research and Innovation Council's Roadmap</p> <p>"Better together for a better world" – Policies to promote internationalization in Finnish higher education and research 2017–2025</p>	<p>Bilateral MoUs with Argentina, Brazil, Guatemala, Haiti, Mexico</p> <p>EU-level: Involvement in the Strategic Forum for International S&T Cooperation (SFIC), EU-CELAC Joint Initiative for Research and Innovation, EU-Brazil dialogue</p>	<p>Team Finland Knowledge network advisor based at the Embassy of Finland in Argentina</p>
Academy of Finland (AKA)	<p>To promote international scientific collaboration and support the internationalization of Finnish science and Finnish researchers.</p> <p>To cooperate with key countries to ensure that Finnish researchers are in the best possible position to engage in high-standard international research collaborations.</p> <p>LAC priority countries Brazil and Chile. Priority themes: biodiversity, bioeconomy, sustainable energy, nanotechnology, materials, education and mineral resources</p>	<p>Quality, impact and renewal in international cooperation: Academy of Finland international policy for 2017–2021 and related background memorandum</p>	<p>Bilateral agreements with National Commission for Science and Technology (CONICYT) (Chile), The São Paulo Research Foundation (FAPESP) and the National Council for Scientific and Technological Development (CNPq) (Brazil)</p> <p>EU-CELAC cooperation (EULARINET 2008–2012, EU-CELAC Platform 2013–) and Trans-Atlantic Platform for the Social Sciences and Humanities (T-AP)</p>	<p>Through Finnish embassies and Team Finland Knowledge Network (TFK) advisors</p>



<p>Finnish National Agency for Education</p>	<p>To develop education and training, early childhood education and care and lifelong learning, as well as to promote internationalization</p>	<p>“Strategy 2020. Towards a global-minded Finland”: CIMO’s strategy 2020. Change forces and strategic goals and priorities</p>	<p>Education Finland growth programme</p> <p>Support for higher education cooperation</p> <p>Bilateral agreement with the Ministry for Foreign Affairs of Mexico.</p> <p>MoUs with Coordination for the Improvement of Higher Education Personnel (Capes) and CNPq (Brazil),</p> <p>MoU with National Administration Board of Public Education</p> <p>ANEP and National Research and Innovation Agency (ANII) (Uruguay).</p> <p>Previously: staff exchange programme between Higher Education Institutions (HEIs) in Finland and Chile and Argentina in late 1990s and early 2000s.</p>	<p>Through Finnish embassies and TFK advisors</p>
<p>The Finnish Cultural Institute in Madrid</p> <p>(Instituto Iberoamericano de Finlandia)</p>	<p>To promote Finnish culture, arts, research and business in the Spanish and Portuguese-speaking world both independently and as a member of Team Finland.</p> <p>One of the core activities of the Institute is supporting scientific cooperation between Finland and the Luso-hispanic world. Cooperation with LAC named as a priority for the 2015–2019 period.</p>	<p>Iberialais-amerikkalaisen säätiön strategia 2015–2019 (not available in English)</p>	<p>Regular cultural activities such as art exhibitions and development projects in the LAC region</p>	<p>Based in Madrid but has a network of representatives in Argentina, Brazil, Chile, Colombia, Cuba, Mexico, Peru and Uruguay.</p> <p>“Casa Finlandia” cultural centre in Buenos Aires²³</p>
<p>Ministry for Economic Affairs and Employment</p>	<p>Innovation policy: To create an environment that encourages enterprises to bold innovation, renewal and international growth</p>	<p>Research and Innovation Council’s Roadmap</p>	<p>MoU with Chile, in the areas of mining and corporate social responsibility. Cooperation with CONICYT and SOFOFA (Federation of Chilean Industry).</p> <p>Education Finland Growth Programme</p> <p>Export promotion trips</p> <p>European shuttle based in French Guyana (together with Ministry of Transport)</p>	<p>Through Finnish embassies and Business Finland advisors in the region</p>
<p>Business Finland (merger of Tekes and Finpro)</p>	<p>General strategy: To enable companies to grow internationally and also to create world-class business ecosystems and a competitive business environment for Finland.</p> <p>Focus sectors in LAC area are education, bioeconomy, cleantech, digitalization and mining</p>	<p>Research and Innovation Council’s Roadmap</p> <p>Business Finland strategy</p>	<p>Business Finland programmes and export promotion trips</p> <p>MoU with Financing Agency for Studies and Projects (FINEP) (Brazil), expired in 2016</p>	<p>Business Finland representatives in Brazil, Chile, Peru (also covering Colombia) and Mexico (also covering Central America and the Caribbean)</p>

23 Detailed information about the cultural center was not available.

1.1.1. Remarks on the national policy and funding context

Considering the information presented in section 2.2 as well as the information obtained through the stakeholder interviews, it seems that few of the recommendations made by Pärssinen and Sippola in 2012 in regard to increased higher education and research cooperation have materialized. The national landscape continues to be quite fragmented, despite the recent advances in the promotion and support for education export activities, as well as the targeted support for research partnerships offered by the Ministry of Education and Culture through the FinCEAL initiative. Evidently, more emphasis should be placed on the practical implementation of already existing plans, agreements and MoUs.

As a result of reprioritizing and budget cuts, national and bilateral funding for LAC cooperation in research and capacity building for higher education has decreased rather than increased since 2012. The winding down of bilateral cooperation at the funding agencies level can be considered worrisome, especially in the case of a major global player such as Brazil. This results in Finland losing competitive advantage to other European and Nordic countries.

A more innovative and forward-looking approach would also be welcome in terms of project funding involving LAC partners. Closer cooperation between Business Finland and AKA in co-funding calls incorporating research and innovation elements could be worth considering. If bilateral funding collaboration is rekindled in the future, it might also be useful to reassess the priority themes for research cooperation with LAC to enable cooperation on new emerging topics.

At the same time, LAC is no longer a priority for capacity building cooperation through the HEI-ICI. This is a considerable loss because according to the data collected for this report, both public authorities and the academic community agree that there would still be considerable demand for capacity building projects in LAC. Capacity building cooperation is also a key action in strengthening Finnish HEI's global responsibility, as mentioned in the implementation plan of the new internationalization strategy for research and higher education. As for the aim to increase student exchanges to and from LAC, it is highly likely that the adoption of tuition fees will negatively affect the number of incoming degree students from the region, especially since there is no national scholarship system in place in Finland.

The establishment of the Forum for Internationalization, the TFK Network advisor in Buenos Aires, and a stronger Team Finland representation in the LAC region are positive steps towards addressing the challenges related to national coordination, policy coherence and communication activities. The expectations are clearly high, and perhaps even unrealistic, especially in the case of the TFK advisor being envisaged as "covering" the entire LAC region with its 33 countries.

On a general level the momentum for global cooperation is high, but research does not seem to be a current priority. Furthermore, it is important that the global outlook is truly global, and that the traditionally strong focus on European and Asian cooperation does not overshadow other regions of the world, such as LAC. As a researcher interviewed for the FinCEAL Feasibility Study suggests:

"It would help if Finland changed a bit its mindset and started considering these countries as offering many more opportunities than I think are currently perceived. [...] I think maybe it's a mindset that needs to be in place at first and it will then lead to policies."

2.3. EU-LATIN AMERICA AND CARIBBEAN RELATIONS

The aim of the following sections is to provide information on some of the key EU-CELAC bi-regional mechanisms related to STI and higher education cooperation. Beyond national policies and actions, Finland has also been actively involved with the LAC region through various EU platforms. Comments on and recommendations for Finnish involvement in the EU mechanisms will be offered in section 2.6. For a listing of EU funding instruments supporting LAC cooperation, see Appendix 3b.

The strategic association between the European Union and Latin America and the Caribbean is based on long-standing historical and cultural ties and shared values, and has as its objective to face common problems through bi-regional and multilateral actions. In the 1990s, EU-LAC relations acquired a strategic character and the concept of a bi-regional partnership began to form. Since the first LAC-EU Summit in 1999, European and Latin American and Caribbean decision makers have gathered regularly to strengthen the bi-regional dialogue and to agree on the cooperation priorities between both regions. Eight summits have been held to date, with the latest taking place in Brussels in 2015. The result of the summits has been the development of a wide range of cooperation programmes in various priority areas²⁴. In 2010, the European Union – Latin America and Caribbean Foundation (EU-LAC Foundation) was created by the EU and CELAC Heads of State and Government to support the EU-LAC partnership and feed into the intergovernmental dialogue, in line with the bi-regional action plan. The Foundation was transformed into an international organization at the CELAC and EU Foreign Ministers Meeting held in Santo Domingo in 2016 (EU-LAC Foundation website, 2018).

Since the beginning of the Summit process, STI collaboration has been considered a priority topic, but even more so since the VI EU-LAC Summit held in Madrid in 2010. The development of partnerships to jointly address global challenges, strengthen bi-regional partnerships and promote innovation and technology on a bi-regional scale in favour of sustainable development and social inclusion were some of the focal topics

24 The regional development programmes (EC International Cooperation and Development: Latin America):

- EUROsocial II: contributing to improved social cohesion
- AL-INVEST IV: improving the ability of Latin American SMEs to penetrate global markets LAIF: a blending mechanism enabling the funding of infrastructure in sectors like energy, including renewable energies, transport, and environment.
- ALFA III: promoting cooperation in higher education
- Erasmus Mundus (action 2) Latin America: providing academic mobility
- Urb-AL III: strengthening local public policies in LA and urban policy coordination
- EURO-SOLAR: promoting the use of renewable energy and Internet connectivity
- EUROCLIMA: enabling EU-LA cooperation on climate-change-related problems
- RALCEA: supporting the setting up of a network of knowledge centres in the water sector
- WATERCLIMA: river basins and coastal management in the context of climate change.
- FLEGT South America: fostering forest law enforcement, governance and trade
- @LIS II: facilitating the integration of Latin American countries into the global information society
- COPOLAD: improving coherence, balance and impact of anti-drugs policies
- EU-CELAC project on migration: strengthening dialogue and cooperation on migration issues.

The regional programmes for EU-Latin America are funded through the Development Cooperation Instrument (DCI) under the Directorate General for International Cooperation and Development (DG DEVCO), and contribute to the strengthening of the strategic partnership between the EU and Latin America, at the regional, sub-regional and bilateral level. Bilateral development cooperation under the European Development Fund (EDF) and the DCI are in vigor from the 2014–20 period with the Caribbean countries (except the Bahamas), 13 overseas countries and territories and Bolivia, El Salvador, Guatemala, Honduras, Nicaragua and Paraguay. Bilateral cooperation with Colombia, Ecuador and Peru ended in 2017 (EC website).

highlighted in the Madrid declaration. In early 2013, the VII EU-LAC Summit/I EU-CELAC Summit took place in Santiago, Chile, constituting the first instance in which the CELAC was recognized as the Latin American counterpart of the European Union.

The II EU-CELAC Summit held in Brussels in 2015 defined the cooperation priorities listed below, which have been confirmed in EU-CELAC ministerial meetings organized in Santo Domingo (2016) and Brussels (2018). The declarations from the Ministerial meetings have emphasized the role of the EU and CELAC as part of the United Nations (UN). Addressing global challenges jointly has been stressed repeatedly, as well as both regions' support for the Agenda 2030 for Sustainable Development. EU and CELAC have also been driving forces behind the Paris Agreement on Climate Change. (Brussels Declaration, 2015; Building bridges and strengthening our partnership to face global challenges, 2018; The EU-Latin American Strategic Partnership: state of play and ways forward, 2017; EU-CELAC ministerial meeting: Santo Domingo Declaration, 2016; Roadmap for EU-CELAC S&T cooperation, 2016).

Priorities of the EU-CELAC Action Plan, 2015–2017

1. Science, research, innovation and technology
2. Sustainable development, environment, climate change, biodiversity, energy
3. Regional integration and interconnectivity to foster social cohesion and integration
4. Migration
5. Education and employment to promote social cohesion and integration
6. The world drug problem
7. Gender issues
8. Investments and entrepreneurship with a view to sustainable development
9. Higher education
10. Citizen security

A recent case example of collaboration between the EU and LA for the promotion of business, and funded under DG-DEVCO, is the ELAN Programme (European and Latin American Business Services and Innovation). It focuses especially on topics 1, 2 and 8 of the abovementioned priorities, as well as the priority areas of EU-LAC cooperation in research and innovation depicted below in section 2.4.1. The ELAN Programme aims to increase and diversify European economic presence in LA by meeting the Latin American demand for knowledge and innovative technologies. The Programme, deployed in Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico and Peru, is operationalized through two interdependent strategies: 1) European and Latin American Business Services (ELAN Biz) and 2) European and Latin American Technology Based Business Network²⁵



25 ELAN network activities focus on the following areas: environmental technologies, health, new materials, information and communication technologies, renewable energies, nanotechnologies, biotechnology and bioeconomy. For further information, see: <https://www.elanbiz.org/> and <https://www.elannetwork.org/>

(ELAN Network), which aims to generate technology-based business opportunities between European and Latin American SMEs. The Finnish organizations participating in the ELAN Network are VTT Technical Research Centre of Finland Ltd, the Finnish-Latin American Trade Association and Finnpartnership. An ELAN technical mission to Finland was organized in 2016, focusing on sustainable business from bioeconomy, renewable energies and digitalization. FinCEAL has also supported experts from Finnish HEI and research institution participation in ELAN missions in Costa Rica and Chile.

2.4. EU-CELAC COOPERATION IN STI AND HIGHER EDUCATION

2.4.1. EU-CELAC Joint Initiative for Research and Innovation

Finland has participated in and influenced policy making in the field of STI at the European level through the Strategic Forum for International S&T Cooperation (SFIC)²⁶ and the EU-CELAC Joint Initiative for Research and Innovation (EU-CELAC JIRI). In relation to the LAC region, the SFIC has elaborated multiannual roadmaps for S&T cooperation for Brazil, Mexico and CELAC in general. These roadmaps provide information on the areas and partners identified for international cooperation and guide the preparation of funding priorities for Horizon 2020. The Academy of Finland chaired SFIC from 2011 to 2013, and the Ministry of Education and Culture has been deputy chair since March 2017.

The bi-regional STI policy dialogue was initiated at the end of 1990s and has since led to initiatives especially at tackling societal challenges with a view to sustainable development and fostering of further cooperation in research and innovation in specific fields. The EU-LAC Madrid Action Plan adopted at the 2010 Summit included the establishment of the JIRI, which has then been carried out through the high-level senior STI officials' meetings (SOM) process. Its mandate is, among others, to "establish regular bi-regional dialogue on science, research, technology and innovation to consolidate EU-LAC cooperation and to update common priorities, encourage mutual policy learning and ensure the proper implementation and effectiveness of cooperation instruments". Five senior officials' working groups²⁷ were established in 2011 within the JIRI to mobilize stakeholders from both regions on the priority thematic areas of mutual interest, with the support of several international cooperation networks (INCO-NETs).

26 SFIC's objective is to facilitate the further development, implementation and monitoring of the international dimension of the European Research Area (ERA) by sharing information and by consulting between the partners with a view to identifying common priorities which could lead to coordinated or joint initiatives, and coordinating activities and positions vis-à-vis third countries and within international fora." Member states and the Commission are members of the Forum while countries associated to the Horizon 2020 Framework Programme have observer status. (The Work Programme 2017-2018 of the Strategic Forum for International S&T Cooperation, 2018)

27 The five priority themes and corresponding working groups were: Bioeconomy including food security (co-led by Argentina and France); ICT for societal challenges (co-led by Chile and Finland); Biodiversity and Climate Change (co-led by Colombia and France); Renewable Energies (co-led by Mexico and Spain); and Funding and good practices for collaboration (co-led by Mexico and Portugal). Later on, a sixth working group on Health (co-led by Spain and Brazil) was established. The thematic working groups narrowed down objectives for the short- and medium-term and outlined concrete activities and funding options to be further elaborated for bi-regional cooperation.

Building on the work undertaken in the JIRI, the last EU-CELAC Summit in 2015 called for a strengthened framework for cooperation and moving towards an EU-CELAC Common Research Area (CRA). Building on this mandate, the 2016 EU-CELAC SOM confirmed the implementation of the CRA based on three pillars: mobility of researchers, access to research infrastructures and jointly addressing common challenges. The VI Senior Officials Meeting in March 2017 launched concrete policy initiatives and actions to empower the implementation of the CRA. New priority themes were also established: health, sustainable urbanization, transport, energy, bioeconomy, blue growth and ICTs.²⁸ (Roadmap for EU-CELAC S&T Cooperation, 2016)

It should be noted that in recent years, changes in the Directorate General for Research and Innovation (DG RTD) leadership and policy have resulted in the JIRI becoming more EC-led, limiting participation of member states in the decision making process, compared to the first years of its implementation. Moreover, the INCO-Net projects that supported the bi-regional STI policy dialogue have ended. The JIRI process is currently supported by the “Service Facility in Support of International Cooperation in Research and Innovation”. The roles and responsibilities of the Support Facility, as well as the ways in which member states could be involved in it, remain unclear.

The EU also has bilateral policy dialogues and agreements with Argentina, Brazil, Chile and Mexico. Brazil is highlighted here as a case example. The bilateral agreement for scientific and technological cooperation between the European Commission and the Federative Republic of Brazil came into force in 2007, and has since then been renewed twice until 2022. The objective of the agreement has been to encourage, develop and facilitate cooperative activities in areas of common interest by carrying out and supporting scientific and technological research and development activities and it has led to intensive collaboration activities in R&I with more than 350 common projects²⁹. The main areas for cooperation include marine research, ICTs, health, nanotechnology, transport (particularly aviation) and environmental research. The EU-Brazil STI cooperation is currently supported by two H2020-funded projects: CEBRABIC (later named ENRICH Brazil, part of the European Network of Research and Innovation Centres and Hubs) and INCOBRA, that aims to focus, increase and enhance R&I cooperation between Brazilian and European R&I actors. (European Commission, International Cooperation: Brazil, 2018). The Ministry of Education and Culture has been involved in the EU-Brazil STI policy cooperation.

The Ministry of Education and Culture has been actively involved in the EU-CELAC JIRI since the beginning, which has led to benefits for other Finnish STI stakeholders as well as the academic community. AKA participated in the first project, fostering a bi-regional policy dialogue cooperation called EULARINET (2008–2012). After EULARINET, AKA took part in the ERA-Net LAC project (2013–2017), which mobilized funding agencies in both regions to fund bi-regional research in the priority themes, and after the project period developed into an independent network of funding agencies titled the EU-CELAC Platform, of which

28 In addition, the EC’s Joint Research Centre (JRC) is increasingly working with CELAC. The main areas of collaboration are related to soil, water, climate change, deforestation, disaster risk reduction and the bioeconomy.

29 Among the International Partner Countries, Brazil ranked sixth in terms of participation in FP7 and in fourth in Horizon 2020 (as of December 2017). In H2020, Brazilian entities have no longer been automatically eligible for funding but different funding schemes were set up by research foundations in Brazilian states to fund Brazilian participation in H2020 projects.

AKA continues to be a member. VTT Technical Research participated in the ALCUE Net³⁰ project (2013–2017), which offered practical support to the JIRI by organizing workshops and studies and reporting to the SOM regarding the development of priorities in all the thematic areas, as well as in specific projects aiming at establishing common priorities for cooperation in the fields of nanotechnologies (NMP-DeLA³¹, 2013–2015) and ICTs (Leadership³², 2013–2015). With the support of FinCEAL, experts from Finnish universities have also actively participated in ALCUE Net workshops. VTT and other Finnish research organizations have also been actively involved in other EU-funded research projects outside the scope of activities of the JIRI.

2.4.2. EU-CELAC Academic Summit

The first EU-CELAC Academic Summit was organized with the intention of feeding into the EU-CELAC Summit of the Heads of State and Government held in Santiago de Chile in 2013. The overarching aim was for the Academic Summits to constitute the ‘academic pillar’ of the strategic association between the EU and LAC. The Santiago Declaration of the first Academic Summit defined as one of its core objectives the establishment of a Euro-Latin American-Caribbean common space for higher education and STI based on the active contributions from the academic community from both regions. The first Summit also defined four main themes, around which discussions in later preparatory seminars and summits have centred:

1. Strengthening the integration of systems of higher education;
2. Promoting the integration of systems STI;
3. Collaboration between HEIs and their relations with society, particularly with the productive sector;
4. Linkages of the academic community with public policies.

The second EU-CELAC Academic Summit³³ organized in Brussels in 2015 gathered around 500 participants from 48 countries and 300 universities or academic centres. As a result of the recommendations made by the second Academic Summit, the Heads of State and Government dedicated a specific chapter of the Brussels Declaration and Action Plan to strengthening the bi-regional academic cooperation. FinCEAL has followed the Academic Summit process since 2014 but Finnish HEIs have not been involved in the activities.

Despite the large number of participants in the two Academic Summits and their respective preparatory seminars, the hundreds of presentations held on topics pertaining to the objectives of the process, and the declarations and other publications produced, the Academic Summit process had led to few concrete results. The wide array of topics under discussion, as well as the highly heterogeneous institutional backgrounds of the participants,

30 ALCUE Net (Latin America, Caribbean and European Union Network on Research and Innovation.). <http://alcuenet.eu/>

31 NMP-DeLA (Nanosciences, Nanotechnologies and New Production Technologies Deployment in Latin American Countries). <https://nmpdela.eu/> (access via Internet Explorer only)

32 Leadership (Latin America-Europe Advanced Dialogues to Enhance ICT Research and Innovation Partnership). https://cordis.europa.eu/project/rcn/189021_en.html

33 Prior to the Summit, preparatory seminars were organized in Bucharest and Guadalajara in 2014.

combined with lack of strategic leadership and funding to sustain the dialogue between the summits, has resulted in rather fragmented discussions. This, combined with the fact that there has been little follow-up after the events, has not sufficiently helped steer the process towards concrete results. Another problem has been the lack of alignment and knowledge exchange between the Academic Summit process and the bi-regional policy dialogue carried out through the JIRI. To address these problems, the EU-LAC Foundation came forward to assume a bigger role in the preparation for the third Academic Summit that was held in San Salvador in late 2017³⁴ during the first EU-CELAC Knowledge Week alongside the EU-CELAC Senior Officials Meeting of the JIRI. This resulted in a breach between the CELAC-EU Permanent Academic Forum and the EU-LAC Foundation. At the time of writing this report, it is unclear how the Summit process will continue.

2.4.3. EU-CELAC Regional Development and Innovation cooperation

Cooperation between the EU and Latin America also takes place in the field of regional development and urbanization, which is relevant to the subject of this report because of the strong emphasis placed on innovation. Since the mid-2000s, the Directorate-General for Regional and Urban Policy (DG REGIO) has supported various actions in Latin American countries (especially with Brazil, Argentina, Chile, Colombia and Peru) to exchange experiences between regional authorities and development agencies on design issues, implementation and management of policies to promote business competitiveness and cluster development.

European experience in regional policy has allowed DG REGIO to actively support the processes of methodological and conceptual transfer of the regional innovation systems (RIS) and smart specialization strategies (S3) to LA. This has resulted in articulation between European regional authorities and the agencies in charge of promoting innovation and the regional productive development of LA countries.³⁵

In the context of smart specialization, the Ostrobothnia Regional Council has established cooperation with the Chilean region of Aysén in the scope of the “Supporting the Development of a Regional Innovation System to Promote Innovative Regions” (RED) project. A dialogue continues with Chilean public authorities considering smart specialization in bioeconomy as the focal theme for developing further cooperation (interview with representative of Ostrobothnia region; Prieto and Santos, 2017). VTT is also currently involved in two projects related to the implementation of S3 in Latin America.

1.3.4. Remarks on Finnish involvement in EU-CELAC cooperation

As has been shown above, there is a wide variety of EU-CELAC platforms and mechanisms through which STI cooperation is advanced and supported. Finland has been actively participating in EU-CELAC and EU-Brazil STI policy processes, as well as related bi-regional projects and funding agency cooperation for several years. The Ministry of

34 Preparatory seminars were organized in Santo Domingo and Stockholm in 2016.

35 For further references regarding EU-LA collaboration in smart specialization refer to Barroeta et al (2017).

Education and Culture, VTT and AKA have been key organizations involved. Furthermore, Finnish experts' participation in the policy dialogue through attending various thematic workshops in Europe and the LAC region has been supported through FinCEAL since 2013. FinCEAL has also made efforts to disseminate information on the policy dialogue, relevant events and funding opportunities to the Finnish research community. Finnish higher education and research institutions have obviously also been participating in different thematic projects with LAC counterparts, funded through EU mechanisms.

It is important for Finland to stay involved in the EU-CELAC STI process to ensure its say in the setting of priorities for future STI policies and the related funding calls in the upcoming new Framework Programme "Horizon Europe"³⁶. This would also support a more systematic utilization of other EU funding instruments in the context of LAC cooperation. It seems likely that Horizon Europe funding will be made available in themes similar to the current EU-CELAC STI priority areas (health, sustainable urbanization, transport, energy, bioeconomy, blue growth and ICT). Establishment of new, and maintenance of existing, networks in themes of mutual interest is also important in preparation for upcoming funding calls. EU-CELAC collaboration in smart specialization is a relatively recent and interesting opening that offers possibilities for enhancing innovation cooperation between Finland and LAC countries. Further enhancing Finnish engagement in EU-Brazil collaboration is highly recommendable, especially considering the low level of bilateral cooperation with Brazil. Moreover, according to an interviewed representative of the Ministry for Foreign Affairs, there is also the potential for strengthening cooperation between the Finnish embassies in Latin America and local EU representation and ongoing programmes.

2.5. NORDIC-LAC COOPERATION

Besides the wider EU-level cooperation, it is worthwhile to look at relations with the LAC region from a Nordic perspective, which could provide important insight for the future actions Finland may choose to take in regard to LAC. Bilaterally, each of the Nordic countries has a unique approach to the LAC region. The Finnish and Danish governments have phased out bilateral development cooperation in the LAC region, while Sweden and Norway have opted for a more moderate approach. Sweden is still engaged in development cooperation in Bolivia, Colombia, Guatemala and Cuba, whereas Norway has programmes in Brazil, Haiti and Nicaragua (Government Offices of Sweden 2018; NORAD's Country Pages 2018; Research Council of Norway 2018).

In research, Brazil is named as one of Norway's eight priority countries outside the EU. The Research Council of Norway has drawn a roadmap for bilateral research cooperation with Brazil in 2014, detailing the priority areas of cooperation: petroleum, renewable energies, climate and the environment, marine research, bioeconomy/food and cultural/social issues. There are frequent funding calls for research projects with Brazil. Norway has also had a 10-year Latin America programme (2008–2018) that supported research related to social sciences, development research, and research on environment and climate, culture and society, as well as energy and natural resources.

36 Horizon Europe: https://ec.europa.eu/info/designing-next-research-and-innovation-framework-programme/what-shapes-next-framework-programme_en

Denmark has chosen a very focused approach, and is funding development research with Latin America only in the priority countries of Brazil, Colombia and Mexico (Ministry for Foreign Affairs of Denmark 2017). For Brazil, the priority topics for the 2018 funding call were digitalization and innovation, and efficient health care management, and for Colombia, veterinary and food safety. Denmark has also established an innovation centre in São Paulo as part of the Danish Government's innovation strategy.

As for Sweden, the Swedish Ministry for Foreign Affairs has just published "A partnership for the future – an action plan for relations with Latin America and the Caribbean" in August 2018. It is quite general in nature and makes no special emphasis on cooperation in higher education and research, although they are mentioned briefly. The Swedish Research Council, together with Formas³⁷ and Vinnova,³⁸ recently signed a bilateral MoU with the Brazilian organizations CNPq, FINEP and the National Council of State Research Support Foundations (CONFAP). Moreover, the Swedish Foundation for International Cooperation in Research and Higher Education (STINT) has bilateral calls with Chile and Brazil, besides a wide variety of grant and scholarship programmes to support the internationalization of Swedish educational establishments at different stages of partnership building (STINT website, 2018).

An interesting case example from Sweden is the ACCESS (Academic Cooperation Chile Sweden) programme established by Lund University, Pontificia Universidad Católica de Chile, Universidad de Chile and Uppsala University in 2016. The ACCESS platform aims to facilitate and deepen the academic relations between Chile and Sweden as well as to enable increased contacts among researchers, staff and students. In order to contribute to research excellence, long-term collaboration and increased academic mobility between the two countries, four research clusters grouping challenge-based research themes of mutual interest have been identified: natural resources, society, health and innovation. ACCESS activities are centred around a large academic forum organized yearly either in Sweden or in Chile (ACCESS website, 2018).

Nordic cooperation in the field of Latin American studies has long traditions. "Iberoamericana", The Nordic Journal of Latin American and Caribbean Studies, was already established as a bulletin in the 1960s, developed into an academic journal in 1977, and was renewed again in the 1990s. Iberoamericana publishes empirical research findings, theoretical discussions and policy-oriented contributions that address LAC from the perspectives of the social sciences and humanities. In 2008, Nordic-Latin Americanists established the Nordic Latin America Research Network (NOLAN) that organizes a joint conference³⁹ every two years. The establishment of a Nordic Latin America Institute has also been debated over the years. Recently, the discussion has been activated again, and there are plans to establish a Nordic Latin America Institute (working title "NILAS") at the

37 Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning

38 Sweden's Innovation Agency

39 The next NOLAN Conference titled "NOLAN2018: Epochal shifts in current Latin America?" will be organized 25–26 October, 2018 in Oslo.

premises of the University of Stockholm in 2019 (personal communication with Professor Jussi Pakkasvirta, University of Helsinki, January 2018).

In recent years, there have also been new initiatives on strengthening higher education and research cooperation between Nordic and Latin American institutions on an institutional level. The Swedish Council for Higher Education (UHR) has organized three Nordic-Latin American contact seminars to date: the first in Colombia and Peru in 2016, and the second in Paraguay in 2017, and a third in Argentina in 2018. The contact seminars have included an intensive seminar programme to introduce the higher education systems of each of the participating countries and present funding opportunities, as well as thematic discussions and bilateral meetings between universities. The concrete objective has been to incentivize new collaboration in the framework of the Erasmus+ funding scheme⁴⁰, as well as the Swedish Linnaeus-Palme funding instrument. The level of engagement of the other Nordic countries has varied. UHR later followed up the outcomes of the first contact seminar, and the results from the Swedish side are evident: a significant increase in the number of funding applications both for the Erasmus+ funding modalities such as capacity building projects, and for the national Linnaeus-Palme programme that funds long-term cooperation between HEIs (direct communication with Catrine Åkerblom from the Swedish Council for Higher Education, 2.6.2016). So far, Finland has been represented in the contact seminars by FinCEAL (all), Embassy representatives (Lima and Asunción), Haaga-Helia (Lima), and EDUFI (Asunción). The participation of Finnish HEIs has unfortunately been low.

FinCEAL, together with the European Institute of International Studies⁴¹, have made efforts to activate Nordic discussion on increasing joint cooperation towards the LAC region in research and higher education matters. Two seminars were organized in 2016 and 2017 in Stockholm where key institutions from all the Nordic countries were invited, and a policy report is being drafted (to be published in late 2018).

1.4.1. Remarks on Nordic–LAC cooperation

The Nordic countries are also an important reference group for Finland in terms of cooperation with LAC. The approaches that the Nordic neighbours have chosen towards the region can provide an important sounding board for Finnish policy discussions. ACCESS-style close cooperation frameworks that involve several universities, as well as research funders from both sides, is a model worth considering in Finland as well. Evidently, it would require strategic investment from universities and funding agencies alike.

Resource-wise, the Finnish situation differs clearly from the other Nordic countries, speaking in favour of a more focused prioritization of activities. A representative of the Ministry for Foreign Affairs points out: *“In the scientific field, in comparison to the other Nordic countries, Finland is at the bottom of the pile both in terms of opportunities and amount of activities [in cooperation with Brazil].”*

40 The EC promotes higher education exchanges and cooperation between the EU and Latin America through the Erasmus+ programme (2014–2020) by €163 million.

41 A think tank based in Stockholm.

Enhancing cooperation at the Nordic level is also an important opportunity that would merit more attention. While the contact seminar format may be criticized as being somewhat outdated, and in some case driven more by political interest than a real need from academic communities, it still provides an easy way to access knowledge on the challenges and opportunities for cooperation existing with the target countries, and an easy platform for meeting government representatives, funding agencies and university representatives – essentially “killing several birds with one stone”. Therefore, the low level of Finnish involvement can be considered regrettable. In the current situation of scarce national funding opportunities, and considering the relatively low level of Finnish visibility in the LAC region, it would be sensible to make better use of existing platforms for pursuing cooperation that could be further supported by EU – and potentially also Nordic – funding instruments. Multilateral networking opportunities such as the contact seminars may be considered especially useful because they offer the opportunity for establishing new contacts with both Latin American and Nordic colleagues.

Moreover, according to the representative of the Ministry for Foreign Affairs who was interviewed, there is room for strengthening cooperation between the Nordic embassies in Latin America in STI and educational matters. It should be noted that these types of activities cannot effectively be developed without dedication from the public institutions in Finland and dedicated human resources. Although FinCEAL has made efforts to engage in and further develop the Nordic dialogue, this is not a sustainable solution due to the project-based nature of the initiative.

A Finnish strength in comparison to the Nordic countries is its active involvement in the EU-CELAC policy processes, in which the other Nordic countries are not as involved. A national coordination mechanism like FinCEAL has also raised interest, especially among Swedish actors. Education export is another area in which Finland has unique expertise in Latin America.

3. ANALYSIS OF STAKEHOLDER EXPERIENCES AND VIEWS ON LAC COOPERATION

This chapter presents a more detailed analysis of the findings from the interviews carried out with public authorities as well as the data from online questionnaire answers by members of the academic community. Supplementary data available from the FinCEAL Feasibility Study interviews with researchers is also used. The analysis highlights the bottlenecks and opportunities related to cooperation between Finland and the LAC countries. The research community's views on education export will also be presented.

The experiences of researchers and other staff based in Finnish HEIs and research institutions are deemed important to evaluate the impact of the activities in which they have been involved, and to orientate future Finnish involvement in the bi-regional STI policy dialogue, as well as new projects and cooperation schemes.

3.1. BARRIERS TO COOPERATION AND POTENTIAL SOLUTIONS

Interviewees and questionnaire respondents mentioned a variety of factors that hinder mutually beneficial engagement with partners from LAC. The answers can be grouped into four main categories of analysis:

1. National policy coherence and continuity;
2. Funding and human resources;
3. Information sharing, visibility and partnership building between Finland and LAC;
4. Cultural differences.

These are analysed in detail in the sections following. Potential ways for overcoming the barriers are also discussed in connection with each category. There are certain barriers that are impossible or difficult to change (geographical distance, administrative and bureaucratic issues at the institutional level, paperwork related to visas and work permits, etc.), which are not discussed in more detail here.

3.1.1. National policy coherence and continuity

The lack of a national vision or strategy towards the LAC region was mentioned by both the interviewees and some questionnaire respondents as a major barrier for pursuing more consistent collaboration. The following was a surprisingly common comment among authorities and researchers alike:

"Momentum for increasing cooperation with the LAC region has been ongoing for a while already, Finland is not utilizing the opportunities enough."

(Representative of a public institution in an email communication)

"I think in Finland we have a bit of a challenge in that sense that we don't focus, and neither does our university. So we are here and there everywhere. Finland is focusing globally, [my institution] is focusing globally. But we know that we cannot have [the] same kind of focus on all areas or all countries and so forth, maybe because we are just a small nation."

(Researcher interviewed for the FinCEAL Feasibility Study)

Due to the geographical distance, the tradition of cooperation with the LAC region is not particularly strong. Despite the increasing need for global cooperation to tackle wicked problems, it seems that the region is still rather peripheral from the Finnish perspective and consequently there is no prioritization on the political level. As many of the interviewees point out, global cooperation is important in research but LAC is just one of the potential cooperation regions. Many respondents agree that the strong focus on Asia in recent decades has overshadowed cooperation with LAC. This has meant that much institutional experience and know-how has been gathered in regard to Asia, especially China. One interviewee pointed out that Finland does not have a similar "critical mass" when it comes to LAC cooperation, and LAC-relevant expertise is both relatively scarce and often atomized even within a single institution.

As has been shown in section 2.2, different national actors do have contacts and agreements with Latin American institutions, but cooperation is often not materialized beyond the signing of a MoU. Most likely, this is due to lack of funding and/or lack of dedicated human resources at the institutional level that would provide consistency at the implementation stage. Evidently, this then results in fewer funding opportunities for the academic community as well as fewer opportunities for Finnish engagement in the LAC region in general. Furthermore, as was discussed in section 2.2, it seems evident that continuity of policies concerning the LAC region beyond one Government term is questionable, as policy recommendations or action plans are clearly not consistently followed up. This is particularly problematic considering the fact that long-term orientation is considered one of the most important aspects of building collaboration with LAC partners by both the public authorities and the academic community.

Another problem related to the policy context is the relatively weak interaction and information flow between different institutions and sectors, as pointed out by Pärssinen and Sippola (2012). Respondents lament the silo mentality between institutions, which leads to a lack of communication about already existing policies and initiatives across different sectors, as shown by the following quotes by interviewed Ministry representatives interviewed stated:

"There's such a huge distance between us [activities of different Finnish ministries] at the moment; it's because I haven't had time to get to know, I don't know how they could support each other."

"A very efficient and practical approach would be to deploy the strategies by contacting the [Finnish] Embassies directly. Meaning, directly be in touch and tell what it is that should be supported. The setting has been more the other way around, we here [at the Embassy] have been digging for information on what the Academy of Finland and the Ministry of Education and Culture want in regard to Brazil."

The interviews showed that public authorities are aware of Finnish LAC-related research initiatives only on a very general level, whereas researchers in many cases felt that they had no way of influencing policy makers. A Ministry representative suggests that stronger lobbying efforts from academia would be necessary in order to raise civil servants' exposure to existing research collaboration. To a limited extent, efforts have been made in FinCEAL to address the issue but more sustainable and inclusive ways to organize such information sharing is a question that would deserve more attention.

This point is also mentioned in the FinCEAL Feasibility Study (Plath, 2018):

"At the national level, the [FinCEAL] beneficiaries felt that a number of key actions would be needed to support the internationalization of research collaboration. Strengthening the communication and coordination between ministries was seen as one of the key needs in this regard. The interviewees felt that the current environment has too much internal fragmentation, leading to difficulties understanding the landscape and related responsibilities of the different institutions. Some beneficiaries suggested strengthening Team Finland as one means of ensuring better coordination between the ministries and better prioritization of efforts. Other suggestions included better integrating research findings into policy, supporting more open access to ministries and policy makers, and developing new instruments for funding cooperation."

The recently established Forum for Internationalization and the TFK Network are important national mechanisms that have the potential to ameliorate the situation and enhance dialogue between different actors, especially if emphasis is placed on effective communication activities between both these platforms and HEIs, as well as internal communication within the HEIs.

3.1.2. Funding and human resources

3.1.2.1. Funding

Lack of resources, both financial and human, was identified almost unanimously as the greatest barrier to cooperation by both the interviewed public authorities and the academic community. Not surprisingly, the responses paint a particularly bleak picture of the national funding landscape at the moment. Respondents made references to several funding mechanisms that used to support cooperation, but which have been discontinued, including Finnish development cooperation programmes in the LAC region, funding for post-doc stays abroad formerly coordinated by Tekes, the staff exchange programme run by Cimo, as well as the research funding component of the BEAM programme. At the same time, no more bilateral research funding is available and significant cuts to the basic budget of HEIs and research institutes have further exacerbated the situation. Clearly, this results in many missed opportunities and a disadvantaged position in comparison to competitors:

"Local research and international cooperation is funded a lot, I mean really a lot, in Brazil. Obviously, mostly only to the extent that Brazilians take part in it and so forth. But there are possibilities for having very large joint research projects and these easily fall into the hands of other countries [than Finland]. It was a small miracle that we

even made it to the shortlist of the most recent [Brazilian] internationalization project. This includes 14 countries from all over the world with which the Brazilian Ministry of Education and Science encourages to build more international cooperation. So Finland made it to the list but it was a close call that we would have been left out of that one as well. So evidently, the other Nordic countries, for example, will cash in on these situations."

(Representative of Ministry for Foreign Affairs)

All interviewees unanimously agreed that building cooperation with their LAC partners on a long-term basis is of crucial importance, as overcoming cultural and institutional differences often makes starting new collaborations a slower process than that Finns are used to. The partnerships often take more time to bear fruit, but once mutually beneficial contacts are well-established and cooperation up and running, it can yield results for many years. However, the existing support structures and mechanisms do not facilitate long-term partnership building.

"So how do you get to build your network of international people and international researchers when the university actually, even though they say they want it, they really didn't support it?"

(Researcher interviewed for the FinCEAL Feasibility Study)

"But these networks didn't happen over one or two years, actually it has been continuous work over several, four or five years now. So there has been, there needs to be investment [for] it and that is to build these types of things, this type of relationship. [...] These types of processes do take time, and do take effort and do take money and investment to actually achieve. And perhaps that is why the universities are so reluctant.

(Researcher interviewed for the FinCEAL Feasibility Study)

The academic community's answers reflect the reality that funding is scarce, highly competed for, and funding periods are short. No funding mechanisms for long-term academic cooperation between Finnish and LAC institutions exist, although they would be much needed in order to build sustainable partnerships that yield the greatest benefits in the long run.⁴² Some respondents mention FinCEAL grants having provided support for maintaining established partnership during times when project funding has not been available. However, FinCEAL funding is no longer available and its future is uncertain at the time of writing this document.

With regard to research collaboration, it seems evident that a major obstacle at the moment is the inconsistency of funding opportunities in general and the lack of bilateral and long-term funding in particular. Respondents note that LAC is not given any strategic priority by Finnish Ministries and funders. Many major Latin American research funding agencies tend to favour bilateral agreements, which are easier to establish and less bureaucratic, yet the Academy of Finland has opted for engaging with the region only through multilateral schemes. This is a position that greatly differs from the strategies adopted by the other Nordic countries, and inevitably means that research teams in Finland are missing out on significant opportunities that joint calls with major Brazilian re-

42 For the sake of comparison, the Linnaeus-Palme programme administered by the Swedish Council for Higher Education (UHR) and funded by Sida offers opportunities for teacher and student exchanges between higher education institutions in Sweden and HEIs in low and middle-income countries for a maximum period of eight years.

search funders, for example, could provide. Based on the research community's questionnaire answers, it is absolutely clear that what is most needed at the moment are funding opportunities for joint research activities, long-term institutional cooperation and capacity building. Grants to support joint events and researcher mobility were also mentioned several times. Other popular requests from researchers included less bureaucratic application procedures, and more flexible, innovative and multidisciplinary funding instruments.

"There are no funding opportunities for social and management science cooperation. All bi- and multilateral funding goes to natural and engineering sciences. Funding for research cooperation with Latin America and developing countries in general is top down directed which does not work with academic cooperation. We have been mapping funding opportunities for years with my colleagues, but we never found anything. Now we can only collaborate when we have matching local projects, but it is hard to achieve more strategic collaboration without joint funding. We have already been able to make one joint publication with Chilean colleagues and would like to continue this collaboration."

(Questionnaire respondent)

EU and other international funding sources⁴³ are mentioned by several respondents as alternative ways for maintaining cooperation with counterparts from LAC. (See Appendix 3b for a list of EU funding mechanisms). It should be kept in mind that LAC partners can be included in EU proposals and are eligible for funding, except for Brazil and Mexico. In these two countries, however, agreements with national funding agencies have been made to ensure Brazilian and Mexican researchers' ability to take part in consortia. On a general level, the challenges with EU funds are related to the fact that there is a limited number of calls and those only in specific fields, which fails to answer to the needs of the whole research community. Framework programme funding has also become more and more competitive as the interest in EU funds has increased due to a series of cuts in the national R&D&I budgets of several EU countries, including Finland. This has led to "higher application volumes for Horizon 2020, and consequently lower average success rates than in previous Framework Programmes" (Piirainen et al., 2018). Some interviewees highlight the need for Finnish institutions working to improve their know-how and application writing skills for EU instruments.⁴⁴ Furthermore, it should be taken into consideration that LAC institutions often lack experience and knowledge of EU funding instruments, which may mean that a lot of extra effort is required of the Finnish partner, especially if they are the coordinator of a project. Nevertheless, it seems clear that a more systematic approach to improving the utilization of EU funding instruments by Finnish institutions is necessary. Other potential international funding sources mentioned by the respondents include development banks, the Organisation for Economic Co-operation and Development (OECD), Nordic funds and international foundations.

43 Some organizations and funding instruments available to support collaboration between Finnish and LAC organizations are: Nordic Development Fund, Nordic Climate Facility, Energy and Environment Partnership, United Nations Development Programme, Inter-American Development Bank, Development Bank of Latin America, and EU-LAC Foundation.

44 Piirainen et al. (2018): "Finnish success rate remains at an average, or even slightly below the average level, when compared to similar types of economies including Sweden, Denmark, Austria, Norway, Ireland and The Netherlands."

Several LAC countries also have important funding mechanisms for outgoing Masters and PhD students, and in some cases also for inviting visiting researchers, as well as larger international cooperation frameworks. In terms of attracting the talents of both prospective students and researchers, Finnish institutions should pay more systematic attention to these possibilities, and try to increase the visibility of Finland as a destination country, for example in Latin American and Caribbean databases and programmes, as well as through consistent presence at key study fairs and similar key events in the region. This is something that could be achieved with relatively little investment on behalf of Finnish institutions. It should be noted that in higher education cooperation, the lack of a national grant scheme for incoming Masters students is a hindrance for more effective cooperation with LAC funding schemes.

3.1.2.2. Human resources

Besides the lack of funding, both the authorities and academics interviewed report a lack of human resources and time as major obstacles. As one Ministry representative states: *"We have less and less staff and resources to make cooperation"*. Ministries, funding agencies and Finnish Embassies in LAC countries all report a shortage of staff which leads to tasks piling up, constant haste and time pressure. Neither is there enough time for strategic planning or maintaining regular institutional contacts with international partners, including LAC counterparts. Obviously, this is a structural problem with much wider implications than only international cooperation.

"And then there is this resource question again. The load of reactive work is so huge, honestly, [Brazil] is a region the size of 27 countries, and all the research funders' and all the public, semi-public and private universities' Finland-related inquiries are directed here to one person. The amount of reactive work is so massive that most of it gets neglected for the simple reason that the duration of a working day is 8 hours. It leaves little time for this strategic thinking, or thinking about what would make the most sense."

(Representative of Ministry for Foreign Affairs)

The organizations interviewed also lack a dedicated budget, and in most cases, dedicated personnel for LAC activities, which leads to dispersion of institutional knowledge and makes it challenging to advance the cooperation strategically. One of the interviewees goes on to state that due to the lack of resources Finnish authorities are unable to provide the same type of support (*"arvovaltapalvelut"*) as, for example, the other Nordic countries.

In many cases it was somewhat difficult to identify the right person to interview, as knowledge of agreements and activities in the LAC region seemed to be atomized within the institution. The scarcity of human resources is further exacerbated by changes in staff on both sides. Respondents report staff changes in the LAC region to be relatively frequent following political changes, but this is also true on the Finnish side due to the abundance of fixed-term contracts especially in academia but also increasingly in public sector organizations. Short-term contracts and fixed-term personnel leaving the organization lead to constant attrition and loss of know-how on the institutional level, and to loss of established results and impact once the project period is over, inefficiency related

to duplication of efforts, and a general lack of continuity for cooperation activities and established partnerships.

"It also shows a structural problem that is this uncertainty of the work conditions of these project arrangements (...) in Finnish universities in a greater extent but also in research organizations."

(Researcher interviewed for the FinCEAL Feasibility Study)

3.1.3. Information sharing, visibility and partnership building

When it comes to the knowledge of cooperation opportunities and visibility of the LAC region in Finland, respondents point out several challenges. The lack of both monetary and human resources as well as the inter-institutional communication challenges already mentioned are two major factors hindering information sharing and the visibility of Finland in the LAC region and vice versa.

At the same time, interviewees argue that Finnish knowledge and understanding of the LAC region and its development is in general often outdated especially when it comes to public discussion. There are still widespread misconceptions and stereotypical ideas about the LAC region in Finland that have proven hard to uproot, and which affect, for example, Finnish companies' willingness to start projects in the region. This lack of knowledge also tends to lead to generalizations that do not do justice to the vast variety of economic and social realities present across the region. A questionnaire respondent also mentioned the other side of the coin: sometimes the lack of information is not the problem, but rather there is too much information available which makes it increasingly difficult to determine what is relevant. Either way, researchers with both theoretical and practical understanding of the region could have a stronger role in the national discussion in dispelling outdated myths and highlighting prominent and topical issues and processes in the region. As discussed in section 3.1.1., increasing interaction between different sectors, and especially incorporating research-based knowledge into policy processes and strategies, is of vital importance.

On the other hand, Finnish presence and visibility in the LAC region is very limited. While respondents state that the image of Finland as a country is usually very positive in the region, Finland is usually known mostly for basic education and awareness of Finnish expertise in other fields is low. If Finland is to diversify its country image and extend cooperation into new areas, Finnish actors need to invest in a stronger presence in order for Finnish expertise to gain more visibility in the region. This is key also in the talent attraction area mentioned in the internationalization strategy for higher education and research (2017). Short visits are good for establishing contacts, but regular face-to-face meetings are important for maintaining the relationship and Finns should not rely too heavily on virtual communication. Furthermore, it is hard for Finnish actors to find the best partners and build beneficial collaboration schemes without a stronger involvement in potential partner networks and events in the region. While many researchers have existing partnerships in the region, establishing new contacts with LAC experts requires effort. Some researchers mention that finding appropriate partners is a challenge, as there is little knowledge of existing "pools" or networks of LAC researchers working on similar topics.

An important means for gaining new information and access to LAC networks is through the different EU platforms presented in section 2.4. Finland's active role in the JIRI, ERA-Net LAC, as well as participation in FP7 and H2020 projects, have provided considerable advantages in terms of visibility as well. Thus, consistent and active participation in the existing bi-regional platforms can be recommended. The FinCEAL grant scheme has also considerably enhanced researcher mobility between Finland and LAC countries in the past five years and there is also a need for similar targeted support in the coming years. Moreover, in the near future TFK is expected to make new inroads in these matters.

3.1.4. Cultural differences

"I think it's just, of course this type of work requires patience and very much a deep understanding of all of the cultural aspects of the different regions that you work with, which sometimes is frustrating, true. But it can be also very rewarding, in the end, if done carefully and if collaboration is with good partners, which we have been able to build, luckily, throughout the years. So that has been the basic motive. Sometimes, as [with] all research work, there are some low points, but you will just have to persevere and look forward with that and definitely understanding cultural perspectives does help. In the long term, it's something that you can say, "Yes, at least I was part of creating something that is working so well, something that is benefiting society at some level in this or that country." So I think that is also very rewarding. And I suppose that has motivated me so far."

(Researcher interviewed for the FinCEAL Feasibility Study)

Interestingly, almost all the interviewees mentioned cultural differences as a barrier or an issue to be considered, whereas the research community barely made any reference to them in the online questionnaire. This may reflect the fact that the effect of cultural differences as a barrier dissipates over time, as mutual trust and a solid partnership have been established.

Cultural differences came up both in regard to national cultures as well as organizational cultures. While there certainly are differences, several interviewees mentioned that LAC is still culturally closer to Europe and Finland than Asia, which makes it easier to establish mutual trust and understanding. The issue most commonly mentioned was a major difference between Finns and Latin Americans in how fast the partnership was expected to bear fruit. Several respondents mentioned specifically that the need to build trust over a long period of time is not understood in Finnish culture and that Finnish institutions tend to look for immediate or short-term benefits, while it is considered normal in LAC that reaching agreements may take a lot of time. A few of the interviewees specifically mentioned having witnessed real-life cases where the Finnish party has already given up, while the LAC partner considers that they have only just begun the dialogue. This relates to differences in organizational hierarchy and decision making processes as well as differing notions of partnership building. LAC organizations tend to have a high hierarchy which leads to slower and at times more bureaucratic decision making processes, whereas organizational hierarchy is low in Finnish institutions and employees are used to being able to take decisions independently. Moreover, Finnish work culture is heavily task-oriented while Latin Americans and Caribbeans are gener-

ally more relationship-oriented. As one of the interviewees summarized it: *"You need to discuss even when you don't have any agenda"*.

"Based on my experience it takes a lot of dedication, these types of projects, because ways of working are not necessarily the same and also because in these types of countries personal contact is very much valued. And one has to nurture that so at some point it is also necessary to travel there and to see them personally and to build the trust and in order to work on that and produce something of value."

(Researcher interviewed for the FinCEAL Feasibility Study)

Important and sometimes overlooked factors that Finnish institutions and individual researchers should consider when building partnerships with LAC institutions are the possible interlinkages between the academic community and political parties or interest groups, as well as the often much more politically charged nature of research with social sciences in particular, as depicted by the quote below:

"A great risk lies also in getting involved with politically questionable figures, or populist politicians in the LatAm region, although some of them are very much linked to the academic community. This may take the research to [a] politically oriented direction and ward off other potential partners. Especially Finns should consider the background and connections of the researchers and institutions of potential collaborators. This risk exists particularly in social and political sciences, much less in science and technology."

(Researcher in online questionnaire)

Another important dimension related to culture is that of language. Pärssinen and Sippola (2012) recommended that more emphasis be placed on teaching Spanish and Portuguese in Finnish institutions. Interestingly, one of the interviewees pointed out that while the number of Spanish and Portuguese speakers is increasing in Finland, it does not yet "show in the cooperation". This suggests that the problem may be at least partly generational. In any case, Spanish or Portuguese skills are evidently of great benefit if engaging in cooperation with LAC institutions. Finnish institutions should also understand that local information is often available only in the local language, and we should not expect information to be easily available in English. This goes hand in hand with the importance of translating materials into Portuguese or Spanish, at least when building relations with local partners. This tends to smooth things out, at least at the outset. As for the LAC countries, lack of English skills can still be an issue, although there is a huge variation between individuals. In the case of researchers actively engaged in research cooperation with European partners, lack of English skills was rarely mentioned, but it is a relevant issue especially in regard to degree students.

3.2. COOPERATION OPPORTUNITIES

3.2.1. Themes and types of cooperation

"Scientific activity is genuinely international and it is more and more in need. In the best of cases it helps all parties to advance and develop their capacity."

(Researcher interviewed for the FinCEAL Feasibility Study)

FinCEAL has been mapping existing research cooperation since 2013 and the experience gathered shows that the majority of Finnish universities, universities of applied sciences and research institutes carry out some form of research cooperation or related activities in the LAC region, and that cooperation is not limited to only a few selected fields. The areas deemed of particular interest for research and innovation cooperation mentioned in Pärssinen and Sippola's report (2012) and in Finland's LAC Action Plan (2013) were Amazon research, renewable energy and energy efficiency, biomass and biofuels, photonics, climate change, environmental research, social sciences and humanities including Latin American studies. While this listing is still valid, it can be complemented with some more specific examples from recent and current developments in different institutions across Finland.

In the area of ICT, the University of Oulu has active collaboration with Brazil in wireless communications, and the University of Eastern Finland with several different LAC countries. VTT has developed a range of projects focusing on ICT in the framework of EU-Latin American collaboration and especially in EU-Brazil calls⁴⁵, as well as in renewable energies and bioeconomy. The Finnish Natural Resources Institute (LUKE) is strengthening its cooperation networks in South America, especially in Argentina and Chile, in forest bioeconomy and other topics of mutual interest.

There are ongoing projects in the LAC region in multidisciplinary Latin American studies⁴⁶, development studies, history and archaeology and other sub-fields of the social sciences and humanities at the University of Helsinki, including the new Helsinki Institute for Sustainability Science (HELSUS). Forestry research with Latin American counterparts is undertaken at the University of Eastern Finland and at the University of Helsinki. The University of Turku has a long-standing collaboration in multidisciplinary and biodiversity-related research in the Amazon. The Finland Futures Research Centre at the University of Turku has been active in projects related to energy planning in the Caribbean, and is coordinating a HEI-ICI project related to developing the value chains of Andean native food plant crops in Peru and Colombia. Research cooperation in renewable energies is undertaken at several universities, for example Åbo Akademi and Aalto University. An interesting case of higher education cooperation worth highlighting is that of Aalto Lab Mexico⁴⁷. In the area of education export, an example is KiVa, a research-based anti-bullying program developed by University of Turku, which is currently licenced in Chile and some other Latin American countries. The universities of applied sciences also have different types of collaboration, especially education export initiatives, ongoing in Latin America: Häme University of Applied Sciences in the area of R&D related to global education and Laurea in service design and service innovation, Haa-ga-Helia provides a Bachelor's degree programme in International Business in Mexico,

45 Some examples of projects are: Technology platform for point-of-care diagnostics for tropical diseases (Po-diTrodii), Smart Water Management Platform (SWAMP) Brazil-Europe – Monitoring and Control Frameworks (BE-MO-COFRA), all of them with involvement of VTT.

46 It is also possible to study Latin American Studies at Bachelor, Master and Doctoral levels at the University of Helsinki, Faculty of Arts.

47 A multidisciplinary collaboration between Aalto University and several Mexican partners that connects a rural Mayan community with local and Finnish students and academics, civil society, and the public and private sectors of Mexico and Finland, has been ongoing since 2012.

and Seinäjoki University of Applied Sciences has recently conceptualized a Latin American business service centre, to name a few examples⁴⁸. More information on education export initiatives is available from *Education Finland*, a governmental cluster program coordinated by the National Agency for Education.

For more information on recent and ongoing projects that Finnish higher education and research institutions have in the LAC region, see the FinCEAL Infobank database available on the UniPID website: www.unipid.fi/infobank. Efforts have been made to gather projects into one database since 2013. Although the listing in the database is not conclusive, it provides a reasonably illustrative sample of projects, topics of cooperation and institutions involved. There are currently 65 projects related to Latin America and four projects related to the Caribbean in the Infobank. The Infobank is also open for registering new projects.

Respondents of the online questionnaire were asked to indicate fields and themes they consider to have most potential when it comes to cooperating with their colleagues in the LAC region. Their responses are captured in the word cloud presented in Figure 4. The size of the word correlates with the number of times it was mentioned by the respondents.⁴⁹ While this list of potential themes⁵⁰ is far from exhaustive, it shows how vast the range of possibilities is.

Figure 4. Potential topics for research and innovation cooperation



48 Any inaccuracies are the responsibility of the authors.

49 Similar themes and concepts were grouped together.

50 Word cloud generated by using *Tagxedo*

The answers show that issues related to environmental and social sustainability are high on the agenda and would benefit from closer cooperation. ICT, digitalization, the Internet of Things and big data are also areas worth highlighting. The UN's Agenda 2030 can be considered a natural framework for cooperation. A prominent feature of researchers' answers was the emphasis they placed on the complementary nature of knowledge and skills on both sides and the emphasis on the need to find areas of truly mutual interest and mutually beneficial collaboration schemes:

"They [local partners] also many times have the best local knowledge [on] what are the main local challenges, and well of course we as outside observers, we see different challenges, different problems but it's very important to have the local perspective. So we can gain this kind of valuable information, what are the important things to tackle in these regions. And what we can give is of course this kind of our knowledge and kind of scientific support in the form of capacitation courses, yeah, it's kind of communication in both directions."

(Researcher interviewed for the FinCEAL Feasibility Study)

"We can learn many things [...], new ways of approaching problems and also they can help us to adapt our technologies to the local context, which can be very useful not only in the research domain and the academic domain but also for companies because we can be the spearhead that also helps Finnish companies come behind us and then implement things in the field."

(Researcher interviewed for the FinCEAL Feasibility Study)

Yet identifying the most relevant topics or shared issues that are of concern for scientists on both sides is not a straightforward process. Respondents also pointed out that the selection of research topics should not only follow those priorities defined by politics and current policies, but also relevant societal motivations.

The area of education was also mentioned consistently throughout both the interviews and the questionnaire answers, indicating that there would be a lot of potential in increasing capacity building and educational research initiatives (besides education export, which will be dealt with in the following section). Another promising area is innovation projects based on the triple-helix approach, and specifically smart specialization (see section 2.4.4). It should be noted, however, that despite the high cooperation potential in all the above mentioned fields of science, the potential will not actualize itself without consistent effort and concrete support. The actual possibilities for building scientific and technological cooperation differ greatly depending on field and available funding opportunities nationally and internationally. A prerequisite for academic partnerships is the ability for scientists and experts from both sides to meet each other, which does not happen automatically considering the large geographical distance. Therefore, mobility funds and thematic seminars continue to be important means for initiating contacts that may lead to more long-term projects and other forms of collaboration, given that sufficient funding is available. Joint thematic events and seminars that provide academics sufficient time to discuss are a good practice that should be continued and improved.

When it comes to types of cooperation, the questionnaire answers reflect a diverse picture of existing and recent initiatives, including research visits, joint publications, research projects, capacity building activities, joint events, and student, teacher and staff

exchanges as well as contract work. Although it was not specifically asked, experience from FinCEAL shows that these different forms of cooperation build on and support each other, which is why supporting the maintenance of a varied cooperation landscape is especially valuable.

3.2.2. Education export

Education export is a theme that emerged very strongly in the interviews, which illustrates its central role in the current discussions and internationalization policies. The public authorities interviewed spoke unanimously on a positive note about the potential of education export. According to the interviewees, there is high cooperation potential in all levels of education: pre-school, basic education, higher education, vocational education and research. Some of the interviewees specifically pointed out the topic of vocational education: the skills gap existing in many LAC countries between the highly educated managers and the unskilled labour force is an area of special potential for further increasing the Finnish Universities of applied sciences' involvement in educational projects in the LAC region.

Most interviewees were of the opinion that in the best case scenario, education export and research collaboration can support each other, as there is a clear need for both in the LAC region. What this means in practice was not mentioned. The increased cooperation between EDUFI and Business Finland in the region in education export matters was mentioned as a positive step, as well as the establishment of the new TFK Advisor at the Embassy of Finland in Buenos Aires. They did not offer many critical views, although one interviewee stressed that education export means that learning is also needed on the Finnish side while another admitted that in the worst case scenario, education export and higher education and research collaboration have to fight over the same scarce resources. A representative of the Ministry for Foreign Affairs mentioned the recent emphasis on education export by stating:

"A personal presence is needed [in Latin America]. There is a lack of support instruments for this personal presence and the delegation visits organized lately have been mostly focused on education export. So academic cooperation has been forgotten for now, as well as the promotion of academic cooperation, because these have been export-oriented delegations."

(Translated from Finnish)

Among the academic community, views emerging from the questionnaire answers are divided. While many essentially had a positive view on education export and stated that they considered it to be potentially complementary to research cooperation, the other half fostered much more critical views and concerns about the current policies and education export activities overshadowing research collaboration.

"And they all [different ministries] have their own agendas and sometimes it's really difficult to kind of even understand where they're coming from. I know we now have Team Finland which is kind of supposed to group everyone together. But I'm not convinced from a research perspective where policy-wise we are. What is Finland's policy, what is Finland forwarding? Except though, enhancing exports. Because that seems to be the message right

now, whenever there is a Team Finland delegation going somewhere. They're advocating through exports and not that much for research collaboration, which can hurt research."

(Researcher interviewed for the FinCEAL Plus Feasibility Study)

"[Education export] is problematic, because on one hand there is need and interest for Finnish education. On [the] other hand, the risk is that Finnish education model is instrumentalized for profit making of private institutions. The advances in educational research are generally less known than PISA-results, for example, for the reason that the latter has been used for country branding. There are critical education researchers in South America too, who can question the education export motives and outcomes in local contexts. Perhaps in the future it would be interesting to highlight advances in Finnish educational research, as the good level of [the] Finnish school system is already known and the debate must move onwards."

(Researcher in online questionnaire)

"Education is so intimately linked to the general cultural framework that education export will in time meet more and more cultural resistance. This can be seen beginning already."

(Researcher in online questionnaire)

These quotes echo the concerns expressed by education scholars in recent years about the increase of neo-liberal practices in education and the risk that they may enhance inequality (see for example Schatz, 2016 and Sahlberg, 2015). This concern should be taken very seriously considering that LAC is the most unequal region in the world according to various international organizations. Profit making should not happen at the cost of building real partnerships in research, innovation and higher education.

Furthermore, it should be noted that about one half of the respondents of the survey had no opinion, which may indicate lack of knowledge of the topic. It seems clear that even within HEIs themselves, information on the education export activities the institutions carry out is either not easily available, or does not reach the research community. Pärssinen and Sippola (2012) stressed the importance of HEIs coordinating their education export initiatives with the research collaboration but the findings from the questionnaire, albeit limited in scope, seem to indicate that this has not happened.

4. CONCLUSIONS

The report set out to summarize and assess the Finnish policy and funding landscape concerning STI cooperation with the LAC region, and to analyse the barriers and opportunities related to it based on stakeholders' experiences, in order to provide concrete recommendations to guide future actions. In addition to the national landscape, an overview of Finnish involvement in EU-CELAC STI policy cooperation was provided and recent developments on the Nordic front briefly explained.

Based on the analysis of the data, there is growing mutual interest and high cooperation potential between Finland and the LAC countries in a multitude of fields. However, the traditionally stronger focus on European and Asian cooperation has meant that LAC has not been prioritized in the Finnish policy and funding landscape. The recent economic challenges and political reprioritization have further exacerbated the situation.

Not surprisingly, the major obstacle in further enhancing engagement with LAC in research, higher education and innovation is the unstable and precarious funding landscape which is partly due to the lack of strategy and consistency in the implementation of the previously established plans at the political level. Too often, established agreements, MoUs or action plans are not properly followed up and do not result in concrete activities. Furthermore, knowledge silos still exist between different public institutions and region-specific expertise is often dispersed at the institutional level. In general, more effort should be made to improve knowledge sharing practices between the academic community and the decision makers. The recently established Forum for Internationalization and TFK Network are a positive development that offer much potential for addressing some of the issues mentioned.

When it comes to funding, it is important to utilize EU and other international funding mechanisms more systematically, while at the same time maintaining and improving bilateral cooperation with at least the most important partner countries in LAC. This would be of crucial importance in building more sustainable academic cooperation. New, innovative ways of funding novel, promising topics should be developed, possibly as co-funding between AKA and Business Finland and LAC counterparts. Involvement in EU-CELAC policy processes and other closely related platforms should be continued and more efforts invested into establishing a stronger Finnish visibility in LAC through active participation in the most important regional and national events. This would also support a more systematic utilization of other EU funding instruments in the context of LAC cooperation. Further enhancing the engagement of Finnish HEIs and research institutions in the EU-Brazil projects is recommendable, especially considering the current low level of bilateral cooperation with Brazil.

Benchmarking the approaches the other Nordic countries have chosen in their LAC strategies can provide useful perspectives. Overall, there would be room for more Nordic collaboration towards the LAC region, possibly by utilizing Nordic funding instruments, but this requires Finnish institutions' active involvement and dedicated human resources. A cost-efficient way to engage with the other Nordic countries and develop LAC cooperation would be the more active participation of Finnish HEIs in, for example,

the Nordic Contact Seminars. These networking opportunities as well different regional fora and events can also be considered especially useful in the light of accessing international, multilateral funding.

Due to the cuts to the basic funding of HEIs and research institutes, researchers depend on external funding, and their institutions are often not able to offer the necessary support for internationalization efforts, let alone with countries not prioritized politically, as is the case of the LAC region. A prerequisite for academic partnerships is the ability for scientists and experts from both sides to meet each other, which does not happen automatically considering the large geographical distance and stronger cooperation traditions with Europe and some other regions. Therefore, there is also a need to continue supporting researcher mobility and the organization of joint thematic events and delegations in the coming years, which besides offering more visibility to Finnish know-how, may lead to more long-term projects and other forms of collaboration, given that sufficient funding is available. Research, innovation and wider higher education cooperation should not be “be left to their own devices” while all attention and support are focused on education export. A more balanced and holistic approach is necessary. Education export offers many opportunities, but incorporating research-based critical views into the discussion better could benefit the design of future export endeavours. Evidently, different forms of cooperation can build on and support each other, which is why supporting a varied cooperation landscape is especially valuable. HEI’s global responsibility is an important aspect that should not be overlooked.

On a more positive note, we can conclude that untapped opportunities are plentiful, as are potential areas and fields of collaboration. Finnish organizations have plenty of contacts and there are many established frameworks in LAC upon which to build. Besides areas in which cooperation has long traditions, there are several new and interesting themes that would merit more attention. The UN’s Agenda 2030 can be considered a natural framework for collaboration.

Although Finland has a lot to offer in terms of expertise, as a small and relatively homogeneous country we also have a lot to learn from the vastly diverse societies and cultures of the LAC region. The importance of truly mutually beneficial cooperation arrangements cannot be stressed enough. There is still a need to increase the teaching of Spanish and Portuguese languages in Finland, and for institutions to invest in having personnel with specific knowledge of the languages and cultures in LAC. Understanding the values and the wider cultural framework in which cooperation takes place is of crucial importance, and involves reflecting on one’s own cultural conditioning and how it affects our expectations and ways of working in international cooperation in general. Besides cultural sensitivity, building sustainable long-term partnerships in research, innovation and higher education requires in-depth understanding of the needs of our partners, and well-functioning support mechanisms, as well as a lot of time and patience invested in building trust and a personal connection even if it sometimes takes longer than Finns may be culturally conditioned to expect. These things cannot be achieved within one Government term. Therefore, Finland needs a more long-term and holistic vision and roadmap for its engagement with LAC countries. Table 2 summarizes an anal-

ysis of the strengths, weaknesses, opportunities and threats (SWOT) in relation to Finnish cooperation in STI and higher education with LAC region.

Table 2. SWOT analysis: STI and higher education cooperation between Finland and the LAC region

STRENGTHS	WEAKNESSES
<p>Finland's generally positive country image in the LAC region as a neutral country that offers reliable solutions</p> <p>Increased mutual interest for cooperation in various fields</p> <p>Existing institutional contacts and policy (MoUs, agreements, political dialogue, involvement with EU-CELAC JIRI, high-level official visits)</p> <p>AKA's previous bilateral cooperation with Chile and Brazil, and involvement in ERA-Net LAC and the EU-CELAC Platform for Funding Agencies have enabled research cooperation in fields of high priority</p> <p>Visibility gained for Finnish expertise through involvement in EU-funded and bilateral projects and events in the LAC region</p> <p>Experience gained in implementing innovation-focused regional, EU-CELAC (EU-funded) and EU-Brazil (jointly funded) projects in the region in various fields</p> <p>Networks, cultural knowledge and language skills developed through previous higher education cooperation (student and staff exchanges, HEI-ICI and ICI projects and traineeships in the region)</p> <p>Researcher mobility, networks and enhanced visibility created through the FinCEAL Initiative</p>	<p>Lack of knowledge and visibility of the LAC region and cooperation opportunities within Finland and lack of knowledge and visibility of Finland in the LAC region</p> <p>Lack of prioritization of LAC for targeted cooperation, although its growing global relevance is being recognized</p> <p>Lack of a national vision for cooperation with LAC, which affects funding, staffing and sustainability of cooperation</p> <p>Overreliance on EU funding (limited resources also in the EU programmes)</p> <p>Country limitations in EU programmes hinder cooperation with more economically advanced countries such as Brazil and Mexico</p> <p>Cooperation with LAC has been fairly thin and arbitrary in nature, mostly based on personal contacts rather than strategic institutional efforts</p> <p>Weak communication about already existing cooperation and opportunities within and across Finnish organizations (HEIs, research organizations, ministries, funding agencies)</p> <p>Lack of understanding of LAC innovation policies in Finnish institutions</p> <p>Lack of cultural understanding among those unexperienced with LAC cooperation, which affects partnership building and streamlining of organizational processes</p>

OPPORTUNITIES

Important themes for research and innovation cooperation: social, environmental sustainability, sustainable urbanization, innovation ecosystem development, renewable energies, bioeconomy, ICTs, biodiversity, waste to energy, energy efficiency and material efficiency, smart cities, health, societal challenges etc.

TFK Network and increased cooperation between EDUFI and Business Finland in the region may lead to more systematic knowledge creation about opportunities in LAC

Forum for Internationalization of Finnish Higher Education and Research provides platform for strategic decisions regarding internationalization of Finland globally, potentially also with LAC in particular

More cooperation between AKA and Business Finland for funding research, innovation and business

Benchmarking successful solutions implemented by other countries, especially Nordic, and strengthening cooperation with them

Improving Finns' social capital by enhancing Spanish and Portuguese language skills and understanding of LAC cultural contexts

Clear interest and need from the LAC side towards cooperation in all levels of education offers opportunities for education export and other types of cooperation

Incorporating research-based critical views better into the discussion on and planning of future education export endeavours

Complementarity: Latin America has the human resources and motivation and Finland the infrastructure, and both partners have specific expertise

Possibility to test and scale up Finnish solutions in LAC

Finnish participation in EU-CELAC policy dialogue and joint funding

Obtaining more funding from international sources: Organisation for Economic Co-operation and Development, World Bank, development banks (e.g. Inter-American Development Bank, Brazilian Development Bank, Development Bank of Latin America), international foundations

The role of LAC diaspora as ambassadors of Finland in LAC and of LAC in Finland

THREATS

Loss of competitive advantage to Nordic and other EU countries due to Finnish institutions' low level of involvement in LAC in research, education, innovation and business cooperation in comparison to competitors

Low Finnish visibility and involvement in LAC countries' national funding schemes and scholarship programs due to lack of bilateral cooperation

Reduction in the number of international students due to the lack of scholarship program for non-EU/EEEA students > potential candidates are lost to other countries, missing opportunities for internationalizing at home

Know-how related to EU funding mechanisms is relatively low in LAC countries (there are exceptions). LAC countries tend to prefer bilateral mechanisms for simplicity, thus mismatching with Finnish prioritization of multilateral engagement

Risk of over-emphasis on education export and technology enthusiasm overriding other potential areas of cooperation

Narrow-minded notion of what education and educational cooperation are for: not just for business but for the society as a whole

Mismatch between the importance of building long-term partnerships and the short-term orientation of existing support mechanisms

Political and policy changes in the LAC region and in Finland affect the continuity of cooperation negatively, and makes it vulnerable to changes in funding and personnel

Possibility of corruption negatively impacting collaboration

4.1. RECOMMENDATIONS

Finally, a list of recommendations based on the main issues covered by this report is presented below. They are directed to policy makers, representatives of government agencies, HEIs and research organizations.

- Designing and implementing a systematic and **comprehensive national roadmap** to guide cooperation with the LAC region including concrete **follow-up measures and timeline**, through a multi-stakeholder consultation that also involves the research community, for example through the Forum for Internationalization (sufficient “critical mass” for discussing LAC cooperation specifically should be secured).
- Maintaining a **varied cooperation landscape** is key, as different forms of collaboration support and build on each other. The emphasis on education export should not override other potential areas of cooperation. **HEI’s global responsibility** deserves more emphasis.
- More emphasis on the **practical implementation of existing plans, agreements and MoUs**, which requires dedicated human resources at the institutional level.
- Utilizing the **momentum of enhanced Finnish presence in LAC and LAC in Finland**:
 - Enhancing communication between Finnish ministries, funding agencies, Finnish embassies, Team Finland Knowledge Network and other Finnish representation in the region and the Finnish academic community;
 - Enhancing communication also with LAC embassies in Finland.
- **Benchmarking the experiences of other Nordic countries** and assessing the potential for **increasing joint activities** towards LAC.
- Systematically assessing the collaboration (including research) **interests and needs of stakeholders in the LAC region** in chosen priority countries and strategically selecting themes, topics and sectors that are important for LAC and in which Finland has competences to build projects on mutual interest and benefit.

- Continuing **active involvement in EU-level policy making** through SFIC and JIRI, seeking alliances with other member states to establish a stronger say in EU politics towards the region, and taking advantage of the EU-CELAC cooperation to build on already existing networks, cooperation platforms and programmes.
- Developing **more flexible national funding instruments** that enable cross-sectoral cooperation, possibly as a co-fund between Finnish funding agencies, based on best/successful practices benchmarked if needed.
- **EU, Nordic, LAC and other international funding sources** should be utilized as much as possible, but **maintaining bilateral collaboration with LAC research and innovation funders** – especially those identified as the most important partners such as Brazil, Mexico and Chile – should be reconsidered.
- Providing financial support for researcher mobility, research visits and joint thematic events and proposal preparation through **FinCEAL or a similar instrument** is still much needed.
- Organizing regular **thematically focused seminars** in the region to facilitate contacts between research groups – these must offer information on funding opportunities to ensure viability of efforts.
- **Improving communication within HEIs:** information on the education export activities the institutions carry out should also reach the research community, and vice versa.

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APPENDICES

APPENDIX 1. INTERVIEW OUTLINE

1. Please describe the history of your institution's cooperation with Latin American or Caribbean institutions, and your role in it.
 - a. Has there been a focus on specific countries and purposes? If so, why have certain countries been prioritized?
 - b. What are your institution's current focus areas when it comes to cooperation between Finland and the countries in the LAC region?
 - c. What are your institution's current mechanisms or instruments that support or facilitate cooperation between Finland and LAC countries?
2. How do your institutions' activities relate to promoting the internationalization of Finnish higher education and research?
3. How would you describe Finnish higher education/science/innovation cooperation with the LAC region in comparison to other regions of the world?
4. What do you consider to be the main opportunities for Finland in its cooperation with countries in the LAC region?
 - a. What should Finnish authorities do in order to better take advantage of these opportunities?
5. What are the main barriers for the cooperation with Brazil/LAC and why?
6. What are the main lessons you have learned from your cooperation with LAC organizations?
7. How do you see Finnish LAC collaboration developing on the short and long term?
8. How do you see the relationship between Finnish education export activities and research/higher education cooperation with the LAC region?
9. Any other contribution or question?

APPENDIX 2: LIST OF INTERVIEWEES

Organization	Interviewee	Position	Date
Ministry for Economic Affairs and Employment, Corporate Steering Unit, EU and International Affairs	Akseli Koskela	Senior Advisor	29.8.2017
Ministry of Education and Culture, Department for Higher Education and Science Policy	Tiina Vihma-Purovaara	Senior Ministerial Advisor	28.4.2017
Ministry for Foreign Affairs Unit for Latin America and the Caribbean	Ari Mäki	Director	12.6.2017
Embassy of Finland in Brazil	Jarkko Wickström	Coordinator for Education and Science Cooperation	15.8.2018 (by Skype)
Academy of Finland	1. Satu Huuha-Cissokho 2. Marja-Liisa Liimatainen	1. Science Advisor 2. Coordinator	7.6.2017
Business Finland (TEKES)	Minh Lam *Eero Silvennoinen, Director of International Networks, provided some additional information by email	Programme Manager, BEAM programme	31.8.2017
Finnish National Agency for Education, Internationalization Services	1. Samu Seitsalo 2. Jaana Mutanen	1. Director 2. Programme Manager	15.11.2017 2.6.2017 (by email)
Finnpartnership	Birgit Nevala	Programme Director (acting)	11.5.2017
Ostrobotnia Regional Council	Jerker Johnson	Coordinator of International Affairs	14.9.2017 (by Skype)

APPENDIX 3. FUNDING INSTRUMENTS

a. Finnish funding instruments supporting cooperation in higher education, research, innovation and business with Latin American and Caribbean countries

Name of funding instrument	Institution/ funds from	Activities funded	Funding modality and scope	Target Group	Timeframe	Link
The Higher Education Institutions Institutional Cooperation Instrument (HEI-ICI)	Finnish National Agency for Education/ Ministry for Foreign Affairs	Cooperation between HEIs in Finland and the developing world that are designed to enhance higher education provision in these countries	Project funding for max. 3 years, 300 000 and 700 000 euros per project	HEIs, focus on the partner countries of Finland's bilateral development cooperation	3-year programme periods. Last call in 2016.	http://www.cimo.fi/programmes/hei_ici
Traineeship grants	Finnish National Agency for Education	Financial support for internships abroad, either in Finnish embassies or other Finnish institutions, or at local partner institutions	Individual monthly grant to cover living expenses	Students or recent graduates	Yearly call	http://www.cimo.fi/ohjelmat/kansainvalinen_harjoittelu
EDUFI Fellowships	The Finnish National Agency for Education	Start-up scholarships for foreign PhD students for a period of 3 to 12 months to cover living expenses in Finland. Not a full degree scholarship	Monthly scholarships for individual PhD students, max. 1500€	Primarily for doctoral students who will be doing their Doctorate (or Double Doctorate) at a Finnish university. Secondly for visiting doctoral level students who are doing their Doctorate degree at a foreign university. All countries and all academic fields. Chile and Brazil are among prioritized countries.	Rolling Call. Should be applied for 5 months before the intended scholarship period.	http://www.studyinfinland.fi/tuition_and_scholarships/cimo_scholarships/cimo_fellowships

Name of funding instrument	Institution/ funds from	Activities funded	Funding modality and scope	Target Group	Timeframe	Link
Finnish Government Scholarship Pool	EDUFI & authorities appointed in target countries/ Finnish Government	Start-up scholarship of 3–9 months for doctoral level studies and research at Finnish universities or public research institutes	An individual monthly scholarship of 1500€	Only for citizens of specific countries, based on cultural agreements. From the LAC region Cuban, Mexican and Peruvian are eligible. All academic fields.	Annual application round	http://www.studyinfinland.fi/tuition_fees_and_scholarships/edu-fi_scholarships/finnish_government_scholarship_pool
ERA-Net LAC, currently EU-CELAC Platform for Funding Agencies* (*not a Finnish instruments per se, but funding comes from participating countries' own research funders)	Academy of Finland together with European and LAC funding agencies	EU-CELAC Joint Calls for bi-regional research	Research project funding	Each country decides in which calls/topics it wants to participate, and funds its own researchers	3 calls launched so far, the latest with deadline in March 2018	http://www.eranet-lac.eu/ https://www.eucelac-platform.eu/
Academy of Finland Development cooperation call	Academy of Finland/Ministry for Foreign Affairs	Multidisciplinary, problem-based research that targets global development issues. contributing towards achievement of the Agenda 2030 Sustainable Development Goals	Research project funding	Finland-based researchers in cooperation with partners from developing countries (international participation obligatory)	Last call in 2017 for four-year research projects, max. 600 000€ to 1000000€	http://www.aka.fi/global-sets/32akate-miaohjelmat/kehitystutkimus/academy-programme-for-development-research.pdf
FinCEAL Plus	Finnish University Partnership for International Development/Ministry of Education and Culture	Support for building partnerships and establishing joint research activities between Finnish and Latin American and Caribbean researchers	Open Travel Grants, Targeted Travel Grants, Event Grants, Project Preparatory Grants and Research Visit Grants between 500€ and 5000€	Researchers and research groups in Finnish institutions	Rolling Call in 2017-2018, call closed in May 2018	http://www.unip-id.fi/en/page/157/developing_finnish_science_technology_and_innovation_cooperation_between_europe_africa_asia_and_the_lac_region/

Name of funding instrument	Institution/ funds from	Activities funded	Funding modality and scope	Target Group	Timeframe	Link
BEAM - Business with Impact	Ministry for Foreign Affairs and Business Finland	Business-driven innovation projects targeted at developing countries, seeking a social impact	Project funding in the form of grants and soft loans	Primarily for growth-stage companies in any sector; NGO's, universities and research institutions can participate. Target countries can be any of the developing countries listed as eligible for official development assistance by the OECD/DAC, except China.	Rolling Call for companies in 2015–2019; 2 annual calls for NGO's, universities and research institutions ⁵¹ .	https://www.businessfinland.fi/en/for-finnish-customers/services/build-your-network/developing-markets/beam/
FINNISH FUND FOR INDUSTRIAL COOPERATION LTD. (Finnfund)	Finnfund/ State of Finland 93.8%, Finnvera 6.1% and Confederation of Finnish Industries EK 0.1%	Long-term risk capital for private projects in developing countries that involve a Finnish business interest or development policy interest	Investment loans, equity investments and mezzanine financing for both greenfield and expansion projects	Companies Target countries can be any of the developing countries listed as eligible for official development assistance by the OECD/DAC and Russia.	Rolling Call (?). Application by submitting a project plan.	https://www.finnfund.fi/en_GB/etusivu/
The Finnish Business Partnership Programme, Finnpartnership	Finnfund/ Ministry for Foreign Affairs	Financial support and advisory services for Finnish companies in the planning, development and training phases of a project in developing countries		Companies and organizations in all sectors planning or improving business activities in developing countries.	Rolling Call organized in 2-month application and processing periods.	http://www.finnpartnership.com/www/en/index.php

51 BEAM Programme Manager mentioned in interview that no more calls for research organizations would be issued during the remainder of programme period.

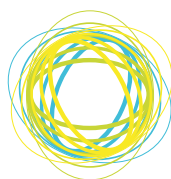
Name of funding instrument	Institution/ funds from	Activities funded	Funding modality and scope	Target Group	Timeframe	Link
Education Finland growth programme	Ministry of Employment and Economy and Ministry of Education and Culture/ Finnish National Agency for Education	<p>Offers information on new business opportunities in the field of education export and support for developing export know-how.</p> <p>Aims to increase the visibility of Finnish educational system worldwide. Develops of new service concepts.</p> <p>National education export program, offering Finnish educational know-how and learning solutions globally</p>	<p>Does not offer funding but other types of services. Membership to the growth programme needed to benefit from the services. Membership fee according to the turnover of the company</p>	Companies, education providers and other education export actors in Finland.	Current programme period until the end of 2018.	<p>http://www.oph.fi/koulutusvienti (for Finnish members)</p> <p>http://www.eduexport.fi/web/futurelearningfinland</p> <p>(for international clients)</p>

b. European funding instruments supporting cooperation with the LAC region
 (“Vademecum in a nutshell: overview of DGs included”, copied from EU-LAC Foundation 2017,
https://eulacfoundation.org/en/system/files/vademecum_cooperation_eu-lac.pdf)

DG	Cooperation platform	Website
DG CONNECT	<ul style="list-style-type: none"> • Regulatory harmonization • R&D cooperation • Support for a submarine fibreoptic cable 	https://ec.europa.eu/digital-single-market/en/dg-connect
DG DEVCO	<ul style="list-style-type: none"> • Multiannual Indicative Programme for Latin America (2014–2020) • The Latin America Investment Facility (LAIF) • The Caribbean Investment Facility (CIF) • Funding instrument that provides the legal basis for the implementation of geographic and thematic programmes with LAC countries • Development Cooperation Instrument (DCI) • European Instrument for Democracy and Human Rights (EIDHR) • Instrument contributing to Stability and Peace • Partnership Instrument (PI) • Instrument for Nuclear Safety Cooperation (INSC) 	https://ec.europa.eu/europeaid/general_en
DG EAC	<ul style="list-style-type: none"> • Erasmus+ • Creative Europe • Euraxess 	http://ec.europa.eu/dgs/education_culture/index_en.htm
DG GROW	<ul style="list-style-type: none"> • Missions for Growth • Enterprise Europe Network (EEN) • Latin America IPR SME Helpdesk 	http://ec.europa.eu/growth
DG REGIO	<ul style="list-style-type: none"> • Bilateral arrangements 	http://ec.europa.eu/regional_policy/index_en.cfm
DG RTD	<ul style="list-style-type: none"> • Horizon 2020 (H2020) • European Research Council (ERC) Starting Grants • SME Instrument 	http://ec.europa.eu/research

Kajsa Ekroos, Maria Lima-Toivanen

**FINNISH RESEARCH, HIGHER
EDUCATION AND INNOVATION
COOPERATION WITH LATIN AMERICA
AND THE CARIBBEAN: ROADBLOCKS
AND RECOMMENDATIONS FOR
FUTURE ACTION**



EXECUTIVE SUMMARY

This policy brief on Finnish science, higher education and innovation cooperation with Latin America and the Caribbean (LAC) region aims to:

- Assess the Finnish policy and funding landscape concerning cooperation with the LAC region,
- Identify the barriers and opportunities related to cooperation with the LAC region from the perspective of the Finnish academic community and highlight themes of collaboration deemed of special importance, and
- Provide recommendations for the strengthening of Finnish cooperation with the LAC region.

While education, research, technology and innovation have been mentioned as potential areas in which mutually beneficial cooperation between Finland and the LAC region has special growth potential, collaboration efforts have often been subject to a lack of both strategy and funding. In recent years, the policy focus has shifted strongly to trade relations, including education export, and the overall premise and funding for international research, higher education and innovation collaboration have substantially deteriorated. The main challenges for Finnish higher education and research institutions to operationalize and pursue long-term cooperation with partners from LAC are lack of policy continuity, coherence and lack of resources, as well as weak articulation and communication between activities in different sectors and institutions. The main recommendation of this policy brief is to develop a more holistic strategy concerning LAC cooperation, with coherent support mechanisms to enable the translation of existing plans and agreements into concrete action. The policy brief is based on a longer report by the same authors to be published in late 2018.

INTRODUCTION

In recent years, there has been increasing political discussion on the importance of the Latin American and Caribbean region in Finland. Besides Finnish institutions' existing cooperative ties in science, higher education and innovation with the LAC region in multiple fields, interest in cooperation on both sides is on the increase. There have been frequent high-level visits and delegations between Finland and the countries in the region, as well as a number of agreements signed, and reports written focusing on different aspects of collaboration with Latin America. Figure 1 illustrates Finnish representation and research or capacity building projects in LAC. However, despite previous suggestions of necessary measures that Finland should take in order to enhance and update cooperation to better correspond to the significance of the region on a global scale, practical implementation and follow-up have been inconsistent due to substantial changes in Finnish policies and funding opportunities.

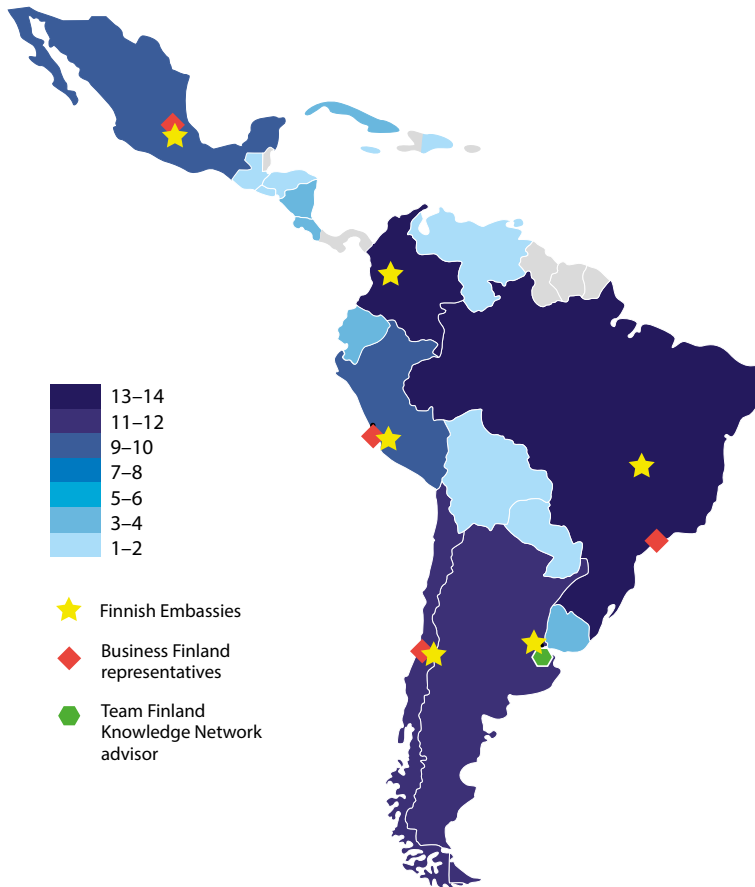


Figure 1. Finnish institutions' research or capacity building cooperation, Finnish embassies and Team Finland representatives in LAC

Finnish institutions' research or capacity building cooperation is indicated on the map in blue. Colour intensity correlates to how many times the country was mentioned by members of the Finnish academic community in the data gathered for the brief. The illustration is by no means exhaustive, but aims to give an idea of the most prominent cooperation countries.

On the positive side, a considerable amount of experience and knowledge have been gathered through Finnish involvement in the European Union and Community of Latin American and the Caribbean States (EU-CELAC) science, technology and innovation (STI) policy dialogues, related bi-regional projects and funding agency cooperation, as well as through the various activities implemented by the FinCEAL initiative (Developing Finnish Science, Technology and Innovation Cooperation with Europe, Africa, Asia and the LAC regions), funded by the Ministry of Education and Culture from 2013 to 2018.

This policy brief synthesizes the recent developments, opportunities and challenges related to LAC cooperation in the context of the Finnish STI landscape, especially from the perspective of the academic community, in order to provide concrete recommendations for the policy makers and funding agencies.

APPROACH

The policy brief is based on a longer report by the same authors, to be published in late 2018. The data for the report was gathered between April 2017 and August 2018, and consisted of existing policy documents and semi-structured interviews with nine representatives of Finnish ministries and funding agencies, as well as an online questionnaire directed to the Finnish academic community. Through the questionnaire, 32 anonymous responses were obtained from experts representing 13 different higher education and research institutions and various scientific fields. In addition, eleven focus group interviews with academics and representatives of public organizations conducted as part of the FinCEAL Feasibility Study were used as supplementary data. Findings from the data have been summarized in *Table 1. SWOT Analysis of the research, higher education and innovation cooperation between Finland and the LAC region* and key takeaways will be highlighted in *Conclusions*.

Assessing collaboration interests and needs from the perspective of stakeholders in the LAC region was considered outside the scope of this report and policy brief, although it would certainly merit more attention in the future. The preparatory work for the report and policy brief was carried out in the framework of the FinCEAL Plus Continuation project, funded by the Ministry of Education and Culture, as well as the project “Latin America, Caribbean and European Union Network on Research and Innovation” (ALCUE NET), funded under European Union grant agreement No 311953.

Table 1. SWOT analysis of the research, higher education and innovation cooperation between Finland and the LAC region

STRENGTHS

Finland's generally positive country image in the LAC region as a neutral country that offers reliable solutions

Increased mutual interest in cooperation in various fields

Existing institutional contacts and policy (MoUs, agreements, political dialogue, involvement with EU-CELAC, JIRI, high-level official visits)

AKA's previous bilateral cooperation with Chile and Brazil, and involvement in ERA-Net LAC and the EU-CELAC Funding Agencies interest group have enabled research cooperation in fields of high priority

Visibility gained for Finnish expertise through involvement in EU-funded and bilateral projects and events in the LAC region

Experience gained in implementing EU-CELAC (EU-funded) and EU-Brazil (jointly-funded) projects in the region in various fields

Networks, cultural knowledge and language skills developed through previous higher education cooperation (student and staff exchanges, HEI-ICI and ICI projects and traineeships in the region)

Researcher mobility, networks and enhanced visibility created through the FinCEAL Initiative

WEAKNESSES

Lack of knowledge and visibility of the LAC region and cooperation opportunities within Finland

Lack of prioritization of LAC for targeted cooperation, although there is recognition of its global relevance for scientific development

Lack of a national vision for cooperation with LAC, which affects funding, staffing and sustainability of cooperation

Overreliance on EU funding and lack of strategy in the Finnish agenda

Cooperation with LAC has been fairly thin and arbitrary in nature, mostly based on personal contacts rather than strategic institutional efforts

Weak communication about already existing cooperation and opportunities within and across Finnish organizations (higher education institutions (HEIs), research organizations, ministries, funding agencies)

Lack of understanding of LAC innovation policies in Finnish institutions

Lack of cultural understanding among those unexperienced with LAC cooperation, which affects partnership building and streamlining of organizational processes

OPPORTUNITIES

Team Finland Knowledge Network and increased cooperation between EDUFI and Business Finland in the region may lead to more systematic knowledge creation about opportunities in LAC

The Forum for Internationalization of Finnish Research and Higher Education provides a platform for strategic decisions regarding internationalization of Finland globally, and potentially also with LAC in particular

More cooperation between Academy of Finland and Business Finland for funding research, innovation and business

More funding from international sources: Organisation for Economic Co-operation and Development, World Bank, development banks (e.g. Inter-American Development Bank, Brazilian Development Bank, Development Bank of Latin America), international foundations

Benchmarking successful solutions implemented by other countries, especially Nordic, and strengthening cooperation with them

Improving Finns' Spanish and Portuguese language skills and understanding of the cultural contexts

LAC region as a priority for education export, interest and need from the LAC side towards cooperation in all levels of education

Incorporating research-based critical views better into the discussion on and planning of future education export endeavours

Complementarity: LAC has the human resources and motivation and Finland the infrastructure, and both partners have specific expertise

LAC diaspora: role as "ambassadors" of Finland in LAC and of LAC in Finland

THREATS

Lack of knowledge and visibility of Finland and cooperation opportunities within the LAC region

Finland lagging behind Nordic countries, in research, education, innovation and business cooperation with LAC – loss of competitive advantage

Low level of bilateral cooperation leads to low Finnish visibility and involvement in LAC countries' national funding schemes and scholarship programmes

Lack of a national scholarship program for international students, potential candidates are lost to other countries, missing opportunities for internationalizing "at home"

Resources are also limited in the EU programmes, and country limitations make cooperation with more economically advanced countries (Brazil, Mexico) more difficult

Know-how related to EU funding mechanisms is relatively low in LAC countries (there are exceptions). They tend to prefer bilateral mechanisms for simplicity, thus mismatching with Finnish preference of multilateral funding schemes

Risk of over-emphasis on education export and technology enthusiasm overriding other potential areas of cooperation

Narrow-minded notion of what education and educational cooperation are for: not for profit but for society as a whole

Political changes in the LAC region and to some extent in Finland make cooperation vulnerable to changes in funding and personnel

CONCLUSIONS

OPPORTUNITIES

Untapped collaboration opportunities are plentiful, as are potential areas and fields of collaboration. Finnish organizations have contacts, and there are many established frameworks in LAC upon which to build. Besides areas in which cooperation has long traditions such as forestry, biodiversity, and social sciences and humanities research, there are several new and interesting themes that would merit more attention.



Figure 2. Potential topics for R&I cooperation between Finland and LAC countries

Themes and fields of most collaboration potential indicated by members of the Finnish academic community. The size of the word correlates with the number of times it was mentioned by the respondents.

Issues related to environmental and social sustainability are high on the agenda and would benefit from closer cooperation. ICT, digitalization, the Internet of Things and big data are also areas worth highlighting. A prominent feature of researchers' answers was the emphasis they placed on the complementary nature of knowledge and skills on both sides and on the need to find areas and collaboration schemes of truly mutual interest and benefit. When it comes to existing and recent types of cooperation, the picture is diverse, including research visits, joint publications, research projects, capacity building activities, joint events, and student, teacher and staff exchanges as well as contract work. Evidently, these different forms of cooperation build on and support each other, which is why upholding a varied cooperation landscape is especially valuable.

CHALLENGE 1: NEED FOR CONTINUITY AND COHERENCE BETWEEN NATIONAL POLICIES CONCERNING LAC COOPERATION

The national STI policy and funding landscape continues to be quite fragmented. Since the Government change in 2015, the overarching trend in Finnish relations with LAC is an increasing emphasis on advancing Finnish business interests. Finland's Latin America and Caribbean Action Plan (Ministry for Foreign Affairs, 2013) presented overall aims for developing cooperation between Finland and the LAC region, but implementation of the Plan and follow-up is not mentioned, and the Plan has not been updated since its publication.

Following the global trend of seeing education as a marketable product, Finland's educational policy has also been re-oriented in the past decade. Recently, Latin America has been identified as one of the priority regions in the national education export growth program and tuition fees for non-EU/EEEA students training in Finland have been adopted. While different STI stakeholders agree that education export offers many opportunities, views among the academic community are divided. Many researchers have expressed critical views and concerns about the current policies and education export activities overshadowing other types of higher education and research collaboration.

Finnish STI actors have a variety of contacts and agreements with Latin American institutions, but cooperation is often not operationalized. Evidently, this then results in fewer funding opportunities for the academic community as well as fewer opportunities for Finnish engagement in the LAC region in general. Furthermore, it seems evident that continuity of policies concerning the LAC region beyond one Government term is questionable, as earlier policy recommendations or action plans are not consistently followed up. This is particularly problematic considering the fact that long-term orientation is considered one of the most important aspects of building collaboration with LAC partners by both public authorities and the academic community.

RECOMMENDATION: Design and implement a more systematic and holistic strategy to guide cooperation with the LAC region through a multi-stakeholder discussion that also involves the research community. The strategy should include concrete follow-up measures and timeline. The emphasis on education export should not override other potential areas of cooperation.

More emphasis should also be placed on the practical implementation of already existing plans, agreements and MoUs, which requires dedicated human resources at the institutional level.

CHALLENGE 2: NEED FOR FUNDING AND HUMAN RESOURCES

As a result of reprioritizing and budget cuts, national and bilateral funding for LAC cooperation in research and capacity building for higher education has decreased rather than increased in recent years. Due to the cuts in the basic funding of HEIs and research institutes, they are often not able to offer the necessary support for researchers' internationalization efforts, let alone with countries not prioritized politically, as is the case for the LAC region. A prerequisite for academic partnerships is the ability for scientists and experts from both sides to meet each other, which does not happen automatically considering the large geographical distance and stronger cooperation traditions with Europe and some other regions.

The winding down of bilateral cooperation at the funding agency level can be considered worrisome, especially in the case of a major global player such as Brazil. EU and other international funding sources are an important means to support cooperation, and should be utilized as much as possible, but it's important to notice that many major Latin American research funding agencies favour bilateral funding schemes. If Finland chooses to engage with the region only multilaterally, it means losing competitive advantage to other European and Nordic countries. At the same time, preconditions for higher education

cooperation with LAC have also deteriorated considerably, since LAC is no longer a priority in the HEI-ICI or ICI programmes, despite continued demand for capacity building activities in LAC. Furthermore, it is highly likely that the adoption of tuition fees will negatively affect the number of incoming degree students from the region, especially since there is no national scholarship system in place.

Besides the lack of funding, both Finnish authorities and academics report the lack of human resources as a major obstacle. The shortage of staff leads to tasks piling up and time pressure, while short-term contracts and fixed-term personnel leaving the organization lead to constant attrition and loss of know-how at the institutional level and often a general lack of continuity for cooperation activities and established partnerships. Neither is there enough time for strategic planning or maintaining regular institutional contacts with international partners, including LAC counterparts. Obviously, this is a structural problem with much wider implications than just international cooperation.

RECOMMENDATIONS: It is important to utilize EU and other international funding mechanisms more systematically, and to continue involvement in EU-CELAC funding agencies' cooperation. At the same time, the possibilities for maintaining bilateral cooperation with at least the most important partner countries in LAC should be reassessed. New, innovative ways of funding novel, promising topics should be developed, possibly as co-funding between the Academy of Finland and Business Finland and LAC counterparts.

CHALLENGE 3: NEED FOR IMPROVED INFORMATION SHARING, VISIBILITY AND PARTNERSHIP BUILDING OPPORTUNITIES

Finnish knowledge and understanding of the LAC region and its development is in general often outdated, especially when it comes to public discussion. There are still widespread misconceptions and stereotypical ideas about the LAC region in Finland that lead to generalizations that do not do justice to the vast diversity of economic and social realities present across the region. Experts of LAC background living in Finland as well as researchers with both theoretical and practical understanding of the region could have a stronger role in the national discussion in dispelling outdated myths and highlighting prominent and topical issues and processes in the region.

The establishment of the Forum for Internationalization of Higher Education and Research, the Team Finland Knowledge Network, and a stronger Team Finland representation in the LAC region are positive steps towards addressing the challenges related to national coordination and information sharing, especially if sufficient emphasis is placed on communication between and within institutions.

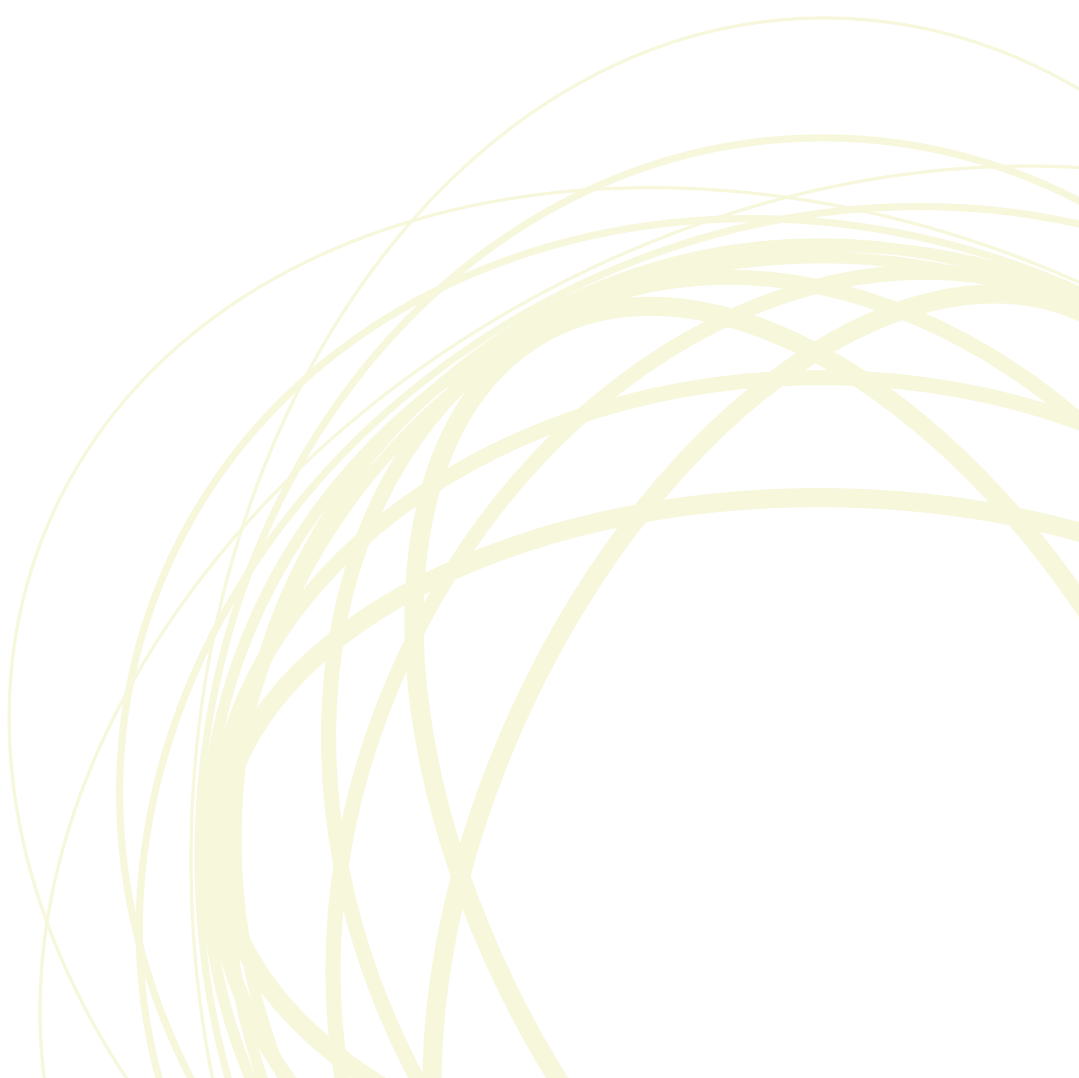
While many researchers have existing partnerships in the region, it requires effort and a stronger involvement in potential networks and events in the region to find the best partners and build beneficial collaboration schemes. An important means for gaining new information and access to LAC networks is through the different EU platforms such as the Joint Initiative for Research and Innovation (JIRI), EU-CELAC Platform, as well as bi-regional Horizon2020 and Erasmus+ projects, which also provide visibility. The FinCEAL grant scheme has also considerably enhanced researcher mobility between Finland and LAC countries in the past five years, and there is a need for similar targeted support in the coming years.

RECOMMENDATIONS: It is important to continue consistent and active participation in the existing bi-regional platforms and mechanisms. In general, more efforts should be made to improve knowledge sharing practices between the academic community and decision makers, and to strengthen communications between and within Finnish institutions.

There is also a need to continue supporting researcher mobility and the organization of joint thematic events and delegations in the coming years, which besides offering more visibility to Finnish expertise, prepares the ground for long-term projects and other forms of collaboration.

IMPLICATIONS

Without adequate political and financial support, research, higher education and innovation cooperation with LAC countries is at the risk of becoming increasingly inconsistent and overly dependent on the availability of EU funds. This may also mean that existing partnerships that took time and resources to build, will wither, and that the windfall benefits of long-term partnerships will be lost. Furthermore, this results in Finland having an increasingly disadvantaged position in comparison to competitors such as the other Nordic countries. Proper implementation of the new internationalization strategy for higher education and research requires upholding and developing different forms of cooperation, which build on and support each other. Therefore, it is important that education export does not override other potential areas of cooperation.



RECOMMENDATIONS

- Designing and implementing a more **systematic and holistic strategy** or updating the Latin America and Caribbean Action Plan to guide cooperation with the LAC region, including follow-up measures and timeline
 - Strengthening the **multi-stakeholder discussion** between different STI actors to formulate a national vision with regard to LAC cooperation – this could be achieved by establishing **a region-specific working group at the Forum for Internationalization** or similar platform
 - **Incorporating the research community** (including international researchers) better into the policy dialogues, and incorporating research-based critical views better into the discussion on, and planning of, future STI cooperation and education export endeavours
 - Deploying strategies by improving communication with Finnish embassies, Team Finland Knowledge Network and other Finnish representation in the region
- Systematically assessing the collaboration (including research) interests and needs of stakeholders in the LAC region in chosen priority countries
 - Strategically selecting **themes, topics and sectors that are important for LAC and in which Finland has competences**, and building projects on mutual interest and benefit
- Utilizing the momentum of enhanced Finnish presence in LAC
 - Enhancing communication between Finnish ministries, funding agencies, Finnish embassies, Team Finland Knowledge Network and other Finnish representation in the region and the Finnish academic community
- Continuing active involvement in **EU-level policy making** through the Strategic Forum for International Cooperation in Research (SFIC) and JIRI, seeking alliances with other member states to establish a stronger say in EU politics towards the region
- Benchmarking **the experiences of other Nordic countries** and assessing the potential for increasing joint activities towards LAC
- Developing **more flexible national funding instruments** and more collaboration between Finnish funders, based on best/successful practices, benchmarked if needed
- Reconsidering the possibility of **bilateral collaboration with LAC research and innovation funders** – especially those identified as the most important partners, such as Brazil and Chile
- Providing financial **support for researcher mobility, research visits and joint thematic events and proposal preparation** through FinCEAL or a similar instrument is still much needed
- Promoting a **more systematic utilization of EU, Nordic, LAC and other international funding** sources through increased visibility and communication efforts

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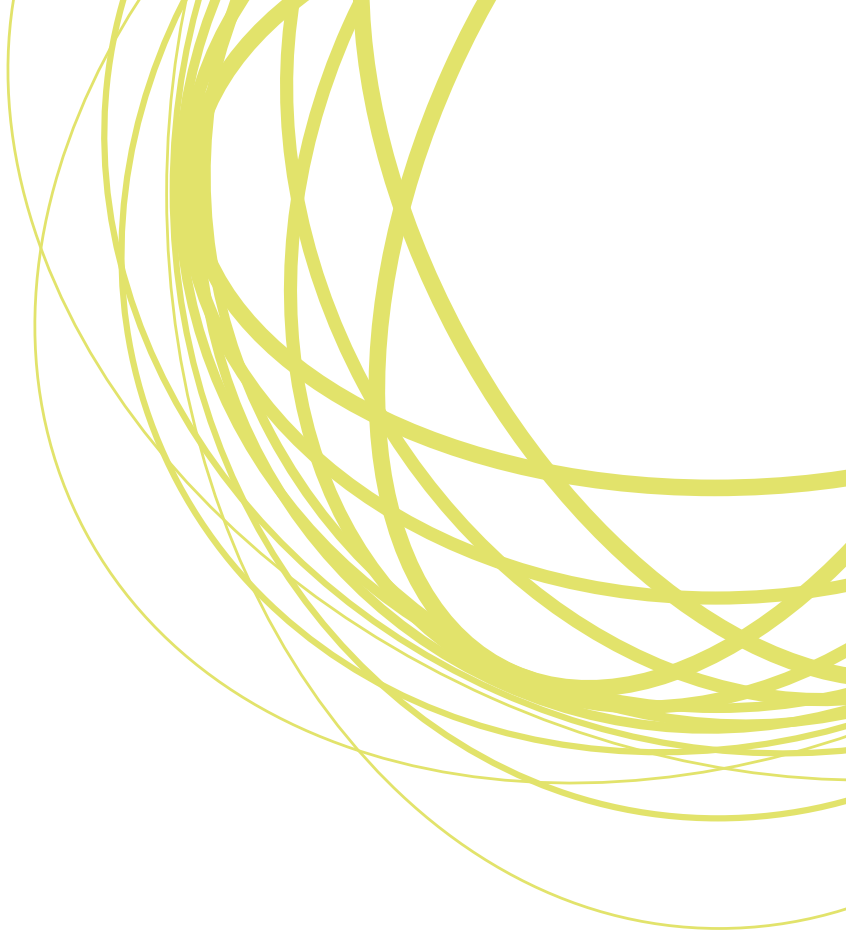
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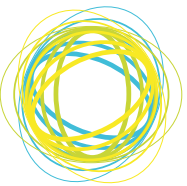
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