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Ministry of Education and Science
State Secretary L. Lejiņa

Implementation Plan of Latvia CERN Strategy

In accordance with the informative report on the strategy of Latvia for pursuing the status of a full-fledged Member State of the European Organisation for Nuclear Research

2022

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1. Framework

The Plan for the Implementation of the CERN Strategy (hereinafter – the plan) of Latvia (hereinafter – LV) has been developed in accordance with the informative report[1] of 6 December 2022 "Strategy of Latvia for Pursuing the Status of a Full-fledged Member State of the European Organisation for Nuclear Research" (hereinafter – the strategy).

The **overarching goals** of the strategy are as follows:

1. Meaningful and coordinated membership of LV as an Associate Member State of CERN.
2. LV status of a full-fledged Member State of CERN within 2–3 years.

This plan provides a structured and transparent outline of the main means, collaboration mechanisms, and guidelines for achieving the set objectives in the strategy, in line with the courses of action for collaboration with CERN.

Until 31 December 2022, the National Contact Point of CERN (hereinafter – the *Contact Point*) operated within the High-Energy Physics and Accelerator Technology Centre of the Riga Technical University (hereinafter – the RTU), coordinated the collaboration between LV and CERN pursuant to the Action Plan of the Latvian National Contact Point of CERN, and ensured participation as an Associate Member State of CERN. This plan is a logical continuation of the Action Plan of the Latvian National Contact Point of CERN.

In accordance with the strategy, as of 1 January 2023, the *Contact Point* operates within the RTU Office of Vice-Rector for Science, under the direct supervision of the vice-rector for science. The *Contact Point* is led by the LV representative to CERN in Geneva (hereinafter – the *Representative*), who is supported by coordinator(s) in Latvia and collaborates with the LV scientific community at CERN on a daily basis. Among other responsibilities, the *Contact Point* manages the work of the CERN LV Group, thus actively promoting the participation of various LV scientific institutions and entrepreneurs in CERN and CERN-based experiments and activities.

The plan serves as a tool not only for implementing the strategy but also for its further development and improvement in close collaboration with policymakers, involving all stakeholders, including the scientific community and the private sector.

The plan is to be developed and enhanced, taking into account the priorities of the Ministry of Education and Science (hereinafter – the MoES), the Ministry of Foreign Affairs (hereinafter – the MoFA), and CERN, as well as the evolving situation as Latvia pursues the status of a full-fledged Member State of CERN.

Given that it is a long-term plan, the methods for achieving the objectives and the expected results should be considered in multi-year terms rather than within a single calendar year.

2. Meaningful and Coordinated Membership of Latvia as an Associate Member State of CERN

To achieve the overarching goals, the strategy outlines interconnected tasks, principles of action, and directions in which collaborative activities with CERN are to be implemented. The plan specifies the key means, collaboration mechanisms, and LV guidelines for achieving these specific tasks.

[1] https://tapportals.mk.gov.lv/legal_acts/33323695-de07-471e-b729-259ef4e4f625

I. To use the opportunities provided by CERN optimally and at all levels

Strategic courses of action for collaboration with CERN:

- To strengthen and enhance the capacity of LV in the fields of high-energy physics, accelerator physics, and accelerator technology (human resources domain).
- To consolidate the knowledge base in high-energy particle and accelerator technology, innovative materials, solutions, and ICT applications for the LV economy (technology domain).
- To enhance the availability of innovative treatment methods and particle therapy and expand the development and application possibilities of theranostic agents based on regional collaboration (technology domain).

Means and methods of completing the task	**Collaboration mechanisms and stakeholders**	**Expected outcome**	**Guidelines**
Participation of the LV consortium (RTU+LU) in the CMS experiment in accordance with the Memorandum of Understanding No. CERN-RRB-2002-033/2018 between CERN and the MoES on Participation in the CMS Experiment.	- The scientific leadership and management of participation are ensured by the LV CMS Team Leader and represented by the LV CMS Collaboration Board. - The LV CMS Team Leader informs the CERN LV Group about the participation results on a regular basis and coordinates the work with the *Representative*. - The *Representative* represents the CMS Finance Board and CMS International Committee.	- LV is represented in the CMS decision-making bodies and participates in decision-making processes. - The LV CMS Team Leader and the *Representative* coordinate their activities within the scope of the CMS experiment on a regular basis. - The CERN LV Group is informed about the performance of the LV group in the CMS experiment on a regular basis. - A positive LV image is shaped within the scope of the CMS experiment.	- CMS is the main and priority high-energy physics experiment for LV. - Successful participation of LV in the CMS experiment is critically important for LV membership in CERN and its progress in pursuing the status of a full-fledged Member State. - CMS is the main object of communication and collaboration in the field of high-energy physics and detector technology.
Participation of the LV consortium (RTU+LU) in the MEDICIS experiment in accordance with the Memorandum of Understanding No. KM3384/KT/EN/180C between CERN and the	- The scientific leadership and management of participation are ensured by the LU MEDICIS experts and represented by the LV MEDICIS Collaboration Board	- LV is represented in MEDICIS and participates in the processes of making scientific and technical decisions. – LU MEDICIS experts coordinate their work with the *Representative*	- MEDICIS is the only freely accessible innovative medical radioisotope production facility for LV. - Participation in the MEDICIS scientific programme

Means and methods of completing the task	**Collaboration mechanisms and stakeholders**	**Expected outcome**	**Guidelines**
MoES on Participation in the MEDICIS Experiment.	delegated by the *Representative*. - The LU MEDICIS experts inform the CERN LV Group about the participation results on a regular basis and coordinates the work with the *Representative*.	within the scope of the experiment on a regular basis. - The CERN LV Group is informed about the performance of the LV consortium in MEDICIS on a regular basis.	revitalises the expertise of nuclear medicine and radiochemistry specialists in LV.
Participation of the RTU in CERN accelerator technology projects in accordance with: - Collaboration Framework Agreement CERN-KN 2073 between CERN and the RTU - Memorandum of Understanding for the Future Circular Collider (FCC) Study hosted by CERN Edms No. 1390795 between CERN and the RTU - Memorandum on Cooperation for the Muon Collider (MC) Study between CERN and the RTU - Participation of the RTU in the CERN Next Ion Medical Machine Study (NIMMS) project	- The scientific leadership and management of participation are ensured by the Accelerator Technology Group Team Leader. - The Accelerator Technology Group Team Leader informs the CERN LV Group about the performance results on a regular basis and coordinates the work with the *Representative*. - The *Representative* promotes the involvement of young LV scientists, researchers, and engineers in CERN accelerator technology projects and widening of collaboration.	- LV is involved in CERN accelerator technology projects and participates in the processes of making scientific and technical decisions. - The work of the Accelerator Technology Group is coordinated with the *Representative*. - The Accelerator Technology Group Team Leader and the *Representative* coordinate their activities in matters concerning accelerator technology on a regular basis. - The CERN LV Group is informed about the performance and results of the LV Accelerator Technology Group on a regular basis. - A positive LV image is shaped through participation in accelerator technology projects.	- Successful participation of LV in the CERN accelerator technology projects is critically important for LV membership in CERN and its progress in pursuing the status of a full-fledged Member State. - LV needs to strengthen and expand the involvement of scientists, researchers, and engineers in innovative technology projects and technical developments at CERN. - LV companies need to be involved in the production of technological solutions as a priority.

Means and methods of completing the task	Collaboration mechanisms and stakeholders	Expected outcome	Guidelines
Participation of the LU in AEgIS and ISOLDE experiments in accordance with: - Addendum 4 to the Memorandum of Understanding for the Construction of the AEgIS/AD-6 Experiment between CERN and the LU	- The scientific leadership, management, and representation of participation are ensured by the relevant LU experts. - The *Representative* promotes the involvement of young LV scientists and researchers in AEgIS and ISOLDE.	– LU AEgIS and ISOLDE experts coordinate their work with the *Representative* within the scope of the experiment. - The CERN LV Group is informed about the performance in AEgIS and ISOLDE.	- The participation of LV scientific institutes in the AEgIS and ISOLDE experiments should be expanded by attracting additional financial resources from CERN and/or the respective experiments, including through the CERN Student Programmes.

II. To provide a sustainable contribution to the fulfilment of the country's set priorities in the fields of education, science, economic growth, and R&D

Strategic courses of action for collaboration with CERN:

- To use CERN as an integrated base for human resource development from school to doctoral studies. To raise interest in physics and STEM disciplines, visits to CERN for students, teachers, and the target audience, virtual laboratory work, promotional and communication activities for school youth, teachers, and the general public (human resources domain).
- To enhance the availability of innovative treatment methods and particle therapy, and expand the development and application possibilities of theranostic agents based on regional collaboration (technology domain).

Means and methods of completing the task	Collaboration mechanisms and stakeholders	Expected outcome	Guidelines
CERN permanent exposition in the LV National Library (hereinafter – the LNB) in accordance with a donation contract between CERN and the LNB and a collaboration agreement between the RTU and the LNB.	- Based on the exhibits donated by CERN and in accordance with the concept of a "CERN portal" jointly developed by the LNB and the RTU, as well as the practical guidelines provided by the *Contact Point* and CERN (which involves engaging a service provider and conducting a procurement	- Foundations have been established for long-term collaboration between the LNB, the *Contact Point*, and the LV scientific team at CERN. - A concept has been developed for maintaining and developing the exhibition in collaboration with the	- To promote the fulfilment of tasks included in the LV CERN strategy by encouraging the utilisation of scientific resources and supporting growth of LV. - To raise public interest in CERN in an engaging and understandable manner, motivate the

Means and methods of completing the task	Collaboration mechanisms and stakeholders	Expected outcome	Guidelines
	procedure by the LNB), the LNB develops a technical specification, drafts, and a detailed exposition plan for the portal. - The *Contact Point* facilitates communication with the RTU and the LU LV Team at CERN and CERN outreach experts and coordinates the content information of the portal, particularly regarding the achievements of LV scientists and engineers at CERN.	LV scientific teams represented at CERN. - A working group has been formed to ensure the functioning of the portal, with the option of involving technical personnel from CERN as needed. - An attractive and informative CERN exhibition has been created at the LNB. - Interest in physics and STEM disciplines has been stimulated among a wide audience.	study of STEM disciplines, popularise physics and technology, and provide information about the work of LV scientists at CERN. - To demonstrate practical opportunities to LV pupils, students, teachers, science enthusiasts, and anyone interested in the new, discoveries, technology, collaboration, and growth.
Pupil visits to CERN – "shadowing" of the LV scientific and technical personnel at CERN	- The *Contact Point* ensures the preparation of information for the organisers of shadowing days and coordinates the shadowing day announcements with the RTU and the LU. - The *Contact Point* ensures candidate selection and communication with the candidates. - The *Contact Point* concludes contracts with the selected candidates and ensures transportation and hotel reservation. - The *Representative* promotes the voluntary involvement of LV scientists, researchers, students, and technical and administrative	- A shadowing visit to CERN has taken place. - An appropriate outreach campaign has been created before and after the shadowing day. - Interest in physics and STEM disciplines has been stimulated among a wide audience. - The CERN LV Group is informed about the shadowing at CERN.	- To demonstrate that CERN is also a laboratory of LV and available to anyone interested. - Through the stories of LV individuals, to raise interest in STEM by simply and clearly showing how CERN can be accessed and why it is an attractive goal worth pursuing through STEM education.

Means and methods of completing the task	Collaboration mechanisms and stakeholders	Expected outcome	Guidelines
	personnel working at CERN.		
Pupil visits to CERN – the School of Young Physicists	- The School of Young Physicists (LU) ensures candidate selection and communication with the candidates. - After the candidate selection, the *Contact Point* concludes contracts with pupils (legal representatives) and ensures transportation and hotel reservation. - The *Representative* promotes the voluntary involvement of LV scientists, researchers, students, and technical and administrative personnel working at CERN.	- The pupils selected by the School of Young Physicists, accompanied by a guide, have visited CERN and met LV students and scientists. - The School of Young Physicists has held a popular science lecture with virtual connection to CERN. - The CERN LV Group is informed about the visits of the School of Young Physicists.	- Young people and pupils who already have an interest in physics and STEM are motivated for further growth in these fields. - LV youth and students are shown the opportunity to continue their studies at LV universities with the real possibility of conducting research at CERN and technology fields associated with CERN.
Visits by Riga TechGirls to CERN in accordance with the collaboration agreement between the RTU and Riga TechGirls	- Riga TechGirls announces an opportunity for young women to visit CERN. - Riga TechGirls, together with the *Contact Point*, creates a communication campaign to promote the use of this opportunity. - The *Representative* promotes the voluntary involvement of women working at CERN to meet with representatives from Riga TechGirls and raise interest in STEM through testimonies.	- Riga TechGirls have visited CERN. - An appropriate outreach campaign has been created before and after the visit at CERN. - The CERN LV Group is informed about the visits of Riga TechGirls.	- To promote the idea that more girls and young women envision themselves pursuing and/or continuing their studies in STEM disciplines, with a particular emphasis on engineering. - To raise awareness of CERN in LV and specifically raise women's interest and involvement in CERN and related scientific areas.
Doctoral student visits to CERN (provided that CERN continues supporting the	- The *Contact Point* ensures the preparation of information and coordinates candidate selection with the	- Doctoral students from LV universities have visited CERN. - An appropriate outreach campaign has	- To strengthen networking among the doctoral students from LV universities.

Means and methods of completing the task	Collaboration mechanisms and stakeholders	Expected outcome	Guidelines
organisation of such visits)	RTU, LU, DU, RTA, VIRAC, RSU, etc. - The *Contact Point* coordinates the admission of students to CERN, including transportation and reservations of the CERN hotel. - The *Representative* coordinates the development of the visit agenda with CERN International Relations and the scientific groups.	been created before and after the visit at CERN. - The CERN LV Group is informed about the visits of doctoral students.	- Doctoral students can be effectively motivated for further work by introducing them to world-class scientific research infrastructure and familiarising them with the work and areas of research by LV doctoral students at CERN.
Participation in the CERN Teacher Programme[2] – a visit to CERN by Latvian physics teachers in accordance with the collaboration agreement between the RTU and the Latvian Physics Teachers Association	- The Latvian Physics Teachers Association announces application and competition for teachers to visit CERN. - The Latvian Physics Teachers Association, in collaboration with the *Contact Point*, evaluates applications and conducts candidate selection. - The *Representative* acts as the national coordinator for the CERN Teacher Programme. - The *Representative* promotes the voluntary involvement of LV scientists, researchers, and students working at CERN in the Teacher Programme. - CERN International Relations coordinate and organise the visit of teacher groups at CERN.	- Latvian physics teachers have visited CERN within the framework of the CERN Baltic Teacher Programme. - An appropriate outreach campaign has been created before and after the visit at CERN. - The CERN LV Group is informed about the visits of physics teachers and their practical results on a regular basis.	- The CERN Teacher Programme allows teachers to acquire physics teaching skills that are relevant for the 21st century and provides additional motivation for their work as educators. - To promote networking among LV teachers with colleagues from the Baltic region and other countries.

[2] https://teacher-programmes.web.cern.ch/national-teacher-programmes

III. To support the creation of an environment for scientific excellence

Strategic courses of action for collaboration with CERN:

- To strengthen and enhance the capacity of LV in the fields of high-energy physics, accelerator physics, and accelerator technology (human resources domain).
- To consolidate the knowledge base in high-energy particle and accelerator technology, innovative materials, solutions, and ICT applications for the LV economy (technology domain).

Means and methods of completing the task	**Collaboration mechanisms and stakeholders**	**Expected outcome**	**Guidelines**
National Research Programme (hereinafter – the NRP) "High-Energy Physics and Accelerator Technologies"	- The *Representative* promotes the substantive integration of the NRP into the LV-CERN activities. - The *Representative* promotes the involvement of high-ranking CERN scientists in the NRP Strategic Management Board. - The *Representative* is a member of the NRP Strategic Management Board.	- The NRP is fully integrated into the LV-CERN activities. - CERN experts are involved in the implementation of the NRP. - The NRP Strategic Management Board is informed about the CERN's position on the implementation of the NRP. - The CERN LV Group is informed about the progress and results of the NRP on a regular basis.	- Governmental support measures are provided for the sustainable development of scientific and research capacity in high-energy physics and accelerator technologies. - By 2027, a four-fold increase in the relevant NRP scope and funding is planned, which will enable the attainment of regional leadership in the field of high-energy physics and accelerator technologies.

IV. To promote collaboration between Latvia and CERN, scientific groups and entrepreneurs

Strategic courses of action for collaboration with CERN:

- To strengthen and enhance the capacity of LV in the fields of high-energy physics, accelerator physics, and accelerator technology (human resources domain).
- To provide CERN high-level guest lectures in Latvia and co-supervision of doctoral theses.
- To include CERN experts (visiting professors) in Latvian educational programmes, particularly in disciplines related to high-energy physics and accelerator technologies (human resources domain).
- To consolidate the knowledge base in high-energy particle and accelerator technology, innovative materials, solutions, and ICT applications for the LV economy (technology domain).

Means and methods of completing the task	Collaboration mechanisms and stakeholders	Expected outcome	Guidelines
CERN Latvia Group[3]	- The *Contact Point* organises and coordinates the work of the CERN LV Group. - Scientific institutions and businesses collaborating or willing to collaborate with CERN, as well as other collaboration partners (LTRK, LETERA, MASOC, LDDK, etc.) and the relevant ministries (MoES, MoFA, MoE + LIAA) are participating in the work of the CERN LV Group. - The *Representative* is responsible for the content of meetings and informing about general CERN updates. - The collaboration of LV businesses with CERN and their involvement in CERN procurements is coordinated by the LV Industrial Liaison Officer (hereinafter – the *ILO*).	- Regular CERN LV Group meetings have taken place (at least twice a year). - Group partners are informed about CERN updates and existing collaboration opportunities. - The involvement of Group partners in CERN activities is promoted. - Regular exchange of information and mutual coordination of activities are taking place. - The *ILO* regularly participates in Group meetings and provides information about CERN procurement-related updates and opportunities for LV entrepreneurs.	- The goal of the CERN LV Group is to promote collaboration between scientific institutions and businesses and CERN, involving them in CERN's scientific research, experiments, and projects. - The Group serves as the main mechanism and platform for LV-CERN collaboration and engagement.
Joint doctoral study programme "Particle Physics and Accelerator Technologies" by the RTU and LU	- The *Representative* promotes the involvement of high-level experts from CERN in the work of the Study Programme Board. - The *Representative* promotes the involvement of high-level guest lecturers from CERN in the study process.	- CERN experts are included in the Study Programme Board. - One of the doctoral supervisors for doctoral students is a CERN expert, and the theses are developed in the context of LV-CERN collaboration. - The study programme includes lectures delivered by	- To strengthen and deepen the capacity of LV in the field of high-energy physics, accelerator physics, and accelerator technology, it is essential to attract the lacking LV expertise from CERN and other partners. - It is strategically important to establish

[3] CERN Latvia Group, https://indico.cern.ch/category/11669/

Means and methods of completing the task	Collaboration mechanisms and stakeholders	Expected outcome	Guidelines
	- The *Representative* promotes opportunities for doctoral students to develop their theses within the CERN Doctoral Student Programme.	CERN and visiting professors/guest lecturers from associated research institutes.	an appropriate master's degree study programme in LV.
Federated Tier-2 CERN/CMS computing centre	- The project for the development and maintenance of a Tier-2 centre is implemented by the RTU. - The project partners include the LU, RTA, VIRAC, LNB, as well as the partners of the CERN Baltic Group.[4] - The *Representative* promotes the involvement of CERN and CMS experts in the project.	- CERN experts are involved in the project, and practical support by CERN has been provided through consultations. - The CERN LV Group is informed about the progress and results of the project.	- The establishment of a federated Tier-2 CERN/CMS Centre is crucial for the development of ICT in LV and serves as one of the pillars of the contribution to LV-CMS collaboration. - Expanding LV-CERN collaboration beyond the RTU and LU is essential for the sustainability of the partnership and regional growth.

V. To concentrate the available human resources and attract new ones, and also to use the financial instruments prudently

Strategic courses of action for collaboration with CERN:

- To provide opportunities for students and promote their involvement in all CERN programmes open to them, including engaging in scientific research at CERN, enhancing their qualifications, and facilitating networking and collaboration with emerging scientists from other countries, thus creating a vibrant knowledge community (human resources domain).
- To ensure research visits to CERN focused on doctoral students and researchers by implementing the preparation phase in Latvia (human resources domain).

Means and methods of completing the task	Collaboration mechanisms and stakeholders	Expected outcome	Guidelines
Participation in CERN Graduate Programmes:[5]	- The *Representative* promotes the involvement of LV nationals in ORIGIN,	- LV nationals are admitted to one of the programmes.[6]	It is essential to ensure the involvement of graduates from LV educational

[4] CERN Baltic Group, https://indico.cern.ch/category/10023/
[5] https://careers.smartrecruiters.com/CERN/graduates
[6] These are new programmes which are to be launched in 2023. The admission mechanisms and criteria are still pending.

Means and methods of completing the task	Collaboration mechanisms and stakeholders	Expected outcome	Guidelines
- Early-Career Professionals; - Project Graduates; - Research Fellows.	QUEST, and Research Fellows programmes at CERN, which provide training for future scientists and engineers. - The *Contact Point* disseminates information in LV scientific institutions and the public domain.	- An appropriate outreach campaign has been created to promote the involvement of young professionals in these programmes. - "Successful young professionals" are reflected in the public domain of LV.	institutions in CERN programmes to promote further training of engineering and scientific personnel, skill development, and upskilling.
CERN Doctoral Student Programme[7]	- The *Representative* promotes the involvement of doctoral students from LV scientific institutes in the CERN Doctoral Student Programme. - The *Representative* advises candidates on the most suitable CERN scientific or technical group for their respective research, where necessary.	- LV doctoral students are admitted to the CERN Doctoral Student Programme. - "Success stories" of LV CERN doctoral students are reflected in the public domain. - Doctoral students report to the CERN LV Group at least once about their work at CERN.	- The CERN training and education programmes allow to acquire knowledge that has no alternative sources, thus providing a significant contribution to high-quality, accessible, and inclusive education. - This encompasses not only high-energy particle physics but also a wide range of engineering and ICT fields that are crucial for the functioning of society and economic growth.
CERN Technical Student Programme[8]	- The *Representative* promotes the involvement of LV students in the CERN Technical Student Programme. - The *Representative* advises candidates on the most suitable CERN scientific or technical group for the implementation of the programme, where necessary. - The *Contact Point* disseminates information in LV scientific institutions and the public domain.	- LV students are admitted to the CERN Technical Student Programme. - "Success stories" of LV students of the CERN Technical Student Programme are reflected in the public domain.	

[7] https://careers.cern/doct-projects
[8] https://careers.smartrecruiters.com/CERN/tech

Means and methods of completing the task	**Collaboration mechanisms and stakeholders**	**Expected outcome**	**Guidelines**
CERN Administrative Student Programme, e.g.: translation, personnel management, record-keeping, business management, law, logistics, finance, accounting, library science, informatics, engineering management, science communication, training, education, public relations, psychology, auditing, etc.	- The *Representative* promotes the involvement of LV students in the CERN Administrative Student Programme. - The *Representative* advises candidates on the most suitable CERN structural unit for the implementation of the programme, where necessary. - The *Contact Point* disseminates information to LV partners and in the public domain.	- LV students are admitted to the CERN Administrative Student Programme. - "Success stories" of LV students of the CERN Administrative Student Programme are reflected in the public domain.	It is important to leverage the opportunities provided by CERN as a large international organisation. In addition to scientific or technical competences, CERN offers the potential for developing a wide range of social knowledge competences.
CERN Summer Student Programme	- The *Representative* promotes the involvement of LV students in the CERN Summer Student Programme. - The *Representative*, in consultation with representatives from LV scientific institutions, collaborates with CERN to carry out the selection of LV students. - The *Contact Point* disseminates information in LV scientific institutions and the public domain.	- LV students are admitted to the Summer Student Programme. - Information on the participation of LV students in the CERN Summer Student Programme is available in the public domain. - LV bachelor's and master's degree students have the opportunity to prove themselves in action within CERN's scientific and technical groups, which opens up further career opportunities for them.	- It is crucial to actively involve LV students in the CERN Summer School on the basis of the 2+2 agreement achieved with CERN. Specifically, LV has a quota of 4 students, with 2 funded by CERN and 2 funded by the State budget. - The Summer School allows to identify the most capable LV students and offers them the opportunity to continue their studies at the master's/doctoral level.
Internship at CERN:[9]	- LV nationals have the opportunity to apply for the CERN Internship Programme (1–6 months). - The *Representative* advises candidates on the most suitable	- LV students have had internships at CERN.	

[9] https://jobs.smartrecruiters.com/CERN/743999848702191-short-term-internship-2023

Means and methods of completing the task	Collaboration mechanisms and stakeholders	Expected outcome	Guidelines
	CERN structural unit for carrying out the internship, where necessary.		

VI. To ensure a status of a well-balanced country of Latvia in the upcoming years, while adhering to the 60/40 principle in terms of the benefit for science and industry from CERN membership

Strategic courses of action for collaboration with CERN:

- Further education for industry specialists in an effective format by enabling the opening of new business niches and scale-up of the existing ones (human resources domain).
- Enhancement of value chain security by ensuring a technological base in Latvia to meet the needs of the economy (technology domain).

Means and methods of completing the task	Collaboration mechanisms and stakeholders	Expected outcome	Guidelines
Fulfilment and coordination of the *ILO* functions with the LV scientific and technical groups at CERN[10] CERN Latvia Liaison Committee[11]	- Daily collaboration and exchange of information between the *ILO* and the *Representative*. - Regular collaboration, informal consultations, and exchange of information between the *ILO*, the *Representative*, and relevant departments at CERN (procurement, human resources, international relations, etc.). - The task of the *ILO* is to monitor the implementation of the LV procurement portfolio and procurement planning to ensure the return of LV contributions, while observing the 60/40 proportion	- Effective communication has been established between the *ILO* and the *Representative*, as well as regular communication with the relevant departments at CERN. - In the coming years, LV aims to achieve the status of a well-balanced country. - The CERN LV Group is regularly informed about the procurement portfolio of LV businesses at CERN, as well as the proportion of LV scientific, technical, and other personnel at CERN. - The CERN management is informed about the	- Regular informal information is critical for decision-making, ensuring the status of a well-balanced country, and maintaining the 60/40 proportion. - Despite CERN's position that human resources and procurement fall within its competence, it is important for Latvia to closely monitor these processes and promote strategic, rather than occasional, positions for LV within CERN bodies. - In the context of procurement, it is important to ensure that LV companies with R&D input and research potential are given priority in being

[10] https://procurement.web.cern.ch/home/industrial-returns-cern-member-states
[11] https://indico.cern.ch/event/1181586/

Means and methods of completing the task	Collaboration mechanisms and stakeholders	Expected outcome	Guidelines
	between the scientific (staff contracts, etc.) and industrial components (procurement).	position of LV in this matter.	awarded CERN contracts.

3. Tasks for Latvia to Become a Full-fledged Member State of CERN Within 2–3 Years

This timeframe may extend to a period of 4–5 years depending on how fast the pre-requisites for becoming a full-fledged Member State are fulfilled and the political situation.

VII. Engagement of decision-makers and partners

Means and methods of completing the task	Collaboration mechanisms and stakeholders	Expected outcome	Guidelines
To ensure support from CERN management and Member States	- The *Representative* regularly holds formal and informal meetings with the top management of CERN (DG/directors), and managers of projects and collaborations relevant to LV. - The *Contact Point* coordinates visits to Latvia by CERN management and the responsible personnel. - The *Representative* coordinates visits to CERN by the heads of LV ministries and scientific institutions, involving the relevant CERN departments and LV students and employees currently at CERN. - Regular formal and informal meetings of LV CERN Council delegates (hereinafter – the *delegates*) with the	- The CERN management at the director level is well informed about LV CERN activities, strategies, and the government's stance. - The CERN Council delegates and representatives of the Member States are informed about LV CERN activities, strategies, and the government's stance. - A positive image of LV-CERN collaboration is being created, and direct and indirect support for LV is cultivated. - High-level delegation visits from Latvia are coordinated, and a consistent message about the stance of LV is ensured.	- The motto is "**LV is a reliable and honest CERN partner**". This is to be implemented horizontally and at all levels. - The CERN Strategy of LV is based on national goals, and it is sustainable. - In the recent years, LV has significantly developed its capacity in high-energy physics, and specifically in the field of physics. **Latvia is already making a significant contribution to the CMS experiment and CERN scientific programme as a whole**.

Means and methods of completing the task	Collaboration mechanisms and stakeholders	Expected outcome	Guidelines
	delegates of CERN Member States.		
To actively participate in the work of the CERN Council and committees by forming a positive opinion about Latvia's eligibility for the status of a full-fledged Member State	- The LV *delegates* in the Council hold the following positions: LV Ambassador to the UN in Geneva and Director of the Department of Higher Education, Science, and Innovation of the MoES. The delegates are nominated by the MoES. - In the CERN Finance Committee, LV is represented by the *ILO* of LV and the Director of the Department of Higher Education, Science, and Innovation of the MoES. The representatives are nominated by the MoES. - In the CERN *ILO* Forum, LV is represented by the *ILO*. The *ILO* is nominated by the MoES. - In the CERN Scientific Committee, LV is represented by the CMS Team Leader or the Deputy Team Leader. The representative is nominated by the MoES. - The representative has an advisory mandate in the CERN Council and all committees.	- LV is represented at all CERN Council meetings and informal consultations with Council delegates in person. - LV is represented in all Finance Committee meetings and informal consultations either in person or remotely. - LV is represented in all *ILO* Forums meetings and informal consultations either in person or remotely. - LV is represented in all Scientific Committee meetings and informal consultations either in person or remotely. - In the Council and committees, LV expresses a coordinated opinion based on the guidelines of the strategy and plan. - The image of LV eligibility for a full membership in CERN is being shaped consistently.	- LV is fully prepared to become a full-fledged Member State of CERN. - Full membership of LV in CERN is important not only from a scientific, economic, and knowledge transfer perspective but also from a geopolitical standpoint. - LV meets all three basic requirements for full membership: 1) political will; 2) capable industry; 3) LV has developed a high-energy physics community.

Means and methods of completing the task	**Collaboration mechanisms and stakeholders**	**Expected outcome**	**Guidelines**
To coordinate the participation of Latvia in the work of the CERN Council and its committees	- The *Representative* has a coordinating function between LV *delegates* and the respective committee representatives. - In the event of strategic and/or contentious decision-making, the *delegates* consult with the management of the MoES and the MoFA in advance.	- Appropriate channels and platforms for exchange of information have been created. - Information is exchanged between the delegates and the representatives, and the opinions and the position of LV are coordinated. - The CERN LV Group is informed about the decisions made in the CERN Council and the committees on a regular basis.	The position and opinion of LV in formal and informal discussions of the CERN Council and committees are homogeneous and coordinated, following the principle that "Latvia is a reliable and honest partner of CERN".
To promote coordination at the level of the Baltic States, which involves speaking with one single voice in the context of CERN at the level of the CERN Baltic Group[12] and Baltic Assembly	- In LV, the CERN Baltic Group (hereinafter – the CBG) is represented at the level of scientific institutions and with a mandate of these institutions. - The *Representative* promotes collaboration between the CBG and the Baltic Assembly (hereinafter – the BA). - The *Representative* informs the BA Secretariat and/or Presidium about the LV CERN activities and projects. - The *Contact Point* participates in CBG meetings and provides information on LV CERN activities. - The *Representative* and *delegates* promote	- The CERN LV Group is informed about the CBG activities and collaboration with CERN (three Baltic States) in 3B format on a regular basis. - The CBG and BA are informed about LV CERN activities on a regular basis. - LV participates in informal meetings and consultations of CERN Nordic Countries.	- It is necessary to achieve support from the BA and clear support from the Nordic countries for the full membership of LV in CERN. - It is important to develop the involvement of LV in the format of NB-6 and NB-8 discussions and exchanges of views (similar as in the case of other international organisations).[13]

[12] https://indico.cern.ch/category/10023/
[13] https://www.mfa.gov.lv/lv/baltijas-un-ziemelvalstu-sadarbiba#nb8

Means and methods of completing the task	Collaboration mechanisms and stakeholders	Expected outcome	Guidelines
	the involvement of LV in the work and consultations of the CERN Nordic Countries before the regular CERN Council meeting.		
To ensure unwavering support from the Latvian government, Parliament, scientific community, entrepreneurs, and collaboration partners	- The *Contact Point* carries out communication activities and events to promote the LV-CERN collaboration. - The *Representative*, in collaboration with the CERN Protocol Office, coordinates the visits of the government, members of the Parliament, and other high-level State officials to CERN. - The *Representative*, in coordination with relevant structural units of CERN, organises visits of LV scientific institutions and collaboration partners to CERN. - The *ILO* coordinates the visits of entrepreneurs to CERN.	- The CERN LV Group is regularly informed about the latest developments and opportunities to collaborate with CERN. - Communication and provision of information to all involved parties and general public in LV has taken place in a timely and high-quality manner. - Information on the collaboration between LV and CERN, and the latest developments is available in the public domain. - Work with the media, information channels, and other target groups to explain the significance of CERN and the benefits for LV.	It is important to timely and effectively inform all stakeholders which include policymakers, responsible ministries, scientific institutions, businesses, collaboration partners, and the general public about the benefits of collaboration between LV and CERN. - It is important to publicly share specific success stories of LV individuals and entrepreneurs in the context of cooperation between LV and CERN, in collaboration with LV media.
To promote indirect support from the European Commission	- The *Representative* informs the responsible staff of the Permanent Representation of the Republic of Latvia to the EU, both in person and remotely, about LV CERN activities and planned projects. - The *Representative* meets with the staff of	- The LV Ambassador to COREPER I, the Science Attaché, and the Representative of the Investment and Development Agency of Latvia (hereinafter – the LIAA) in Brussels are informed about the latest developments in the cooperation between LV and	- It is important to ensure indirect support from the EC for full membership of LV in CERN. - It is important to ensure the support of the EC for EU co-funded CERN projects involving LV scientific institutions and entrepreneurs.

Means and methods of completing the task	Collaboration mechanisms and stakeholders	Expected outcome	Guidelines
	the relevant EC directorates to promote the interests of LV in the context of CERN projects.	CERN and the involvement of LV in EU co-funded projects within CERN. The responsible EC officials are informed about the participation of LV in CERN projects.	

VIII. Scientific and technical measures

Means and methods of completing the task	Collaboration mechanisms and stakeholders	Expected outcome	Guidelines
To ensure stable State funding for CERN activities in Latvia	The State funding for CERN activities should be discussed in the process of developing the draft law On the State Budget for 2024 and the Budget Framework for 2024, 2025, and 2026, in conjunction with the priority proposals of all ministries and other public administration authorities, in line with the financial possibilities of the State budget.	Additional required funding has been ensured for 2024 and future years to cover the membership fee of LV as a Member State of CERN and fully cover the expenses outlined in the strategy.	- According to the strategy, a balanced funding for activities, initiatives, and the development of scientific capacity in high-energy physics and accelerator technologies related to CERN should be ensured in LV in the long term. **- The "50/50" principle should be implemented, meaning that national funding for CERN activities should be at least at the same level as the CERN membership fee.**
To increase the capacity and competence in the field of high-energy physics and accelerator technologies	- Establishment of a scientific institute associated with CERN in LV. - A stable team of LV scientists operates independently at CERN.	- The Institute of Particle Physics and Accelerator Technologies has been established. - The master's study programme "High-Energy Physics and Accelerator Technologies" has been developed.	Based on the achieved scientific, research, and academic capacity, according to the strategy, the Institute of Particle Physics and Accelerator Technologies should be transformed as part of the RTU.

Means and methods of completing the task	**Collaboration mechanisms and stakeholders**	**Expected outcome**	**Guidelines**
To promote the awarding of industrial contracts from CERN	- The *ILO* organises outreach seminars and discussions in collaboration with the LIAA and business associations. - Daily collaboration and exchange of information between the *ILO* and the *Representative*. - The *ILO* actively advocates for the interests of LV businesses in relation to CERN and coordinates the collaboration between LV entrepreneurs and CERN, including involvement in CERN procurements.	- LV companies have received information about collaboration opportunities and awarding of CERN contracts. - LV companies have participated in CERN procurements. - LV companies have been awarded CERN contracts. - When fulfilling contracts, if needed, businesses have received direct support from CERN in the form of knowledge and consultations to enhance their technological performance and quality.	- Special attention should be given to knowledge transfer and the involvement of LV businesses that have significant R&D potential and input. - Being a supplier to CERN is a prestigious and recognisable quality mark that opens up broader market opportunities for businesses.
To build a positive image of collaboration with CERN in Latvia	- The *Contact Point* coordinates and carries out internal (within the CERN LV Group) and external communication activities, events, and projects to promote the collaboration between LV and CERN.	- A plan for internal and external communication has been developed to promote the implementation of the strategy. - The CERN LV Group is informed about the communication activities and participates in building a positive image of the collaboration between LV and CERN.	- A positive image of collaboration is crucial for political support, support from the LV scientific community, and general public for CERN activities in LV. In communication, it is recommended to use the hashtag **#LatvijaCERN**