

Eiropas Ekonomikas zonas finanšu instrumenta un Norvēģijas finanšu instrumenta 2014.–2021.gada perioda programmas "Pētniecība un izglītība" Inovāciju centru aktivitātes projekts

Projekta nosaukums	Inovācijas centra izveidošana Cēsīs			
Programmas nosaukums	Pētniecība un izglītība, Inovāciju centri			
Projekta iesniedzējs	Cēsu novada pašv	aldība		
Nodokļu maksātāja reģistrācijas kods	90000031048			
Projekta iesniedzēja veids	Pašvaldība			
Projekta iesniedzēja klasifikācija atbilstoši Vispārējās ekonomiskās	NACE kods	Projekta iesniedzēja klasifikācija atbilstoši Vispārējās ekonomiskās darbības klasifikācijai NACE		
darbības klasifikācijai NACE	85	Izglītība		
	Raunas iela 4			
T '1' 1 - 1		Cēsu novads Cēsis		
Juridiskā adrese	Pasta indekss: LV	7-4101		
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(aizpilda, ja atšķiras no juridiskās		Cēsu novads Cēsis		
adreses)	LV-4101			
Projekta identifikācijas Nr.*				
Projekta iesniegšanas datums*				

^{*}Aizpilda VIAA

1.SADALA – PROJEKTA KOPSAVILKUMS

1.1. Projekta kopsavilkums: projekta mērķis, galvenās darbības, ilgums, kopējās izmaksas un plānotie rezultāti (< 4000 zīmes >) (informācija pēc projekta apstiprināšanas tiks publicēta)

Projekta mērķis ir veicināt zināšanu attīstību un izglītojamo karjeras izvēli STEM jomā, divpusējā sadarbībā, izveidojot inovācijas centru (turpmāk — IC) Cēsīs, kurā izglītojamiem, pedagogiem un pirmsskolas vecuma bērniem ar vecākiem tiek izstrādātas un īstenotas izglītojošas programmas, darbnīcas, koprades telpas, koprades laboratorijas un citi interaktīvi pasākumi STEM jomā.

Atbilstoši Cēsu Domes apstiprinātajai IC stratēģijai (Pielikums 1.1.) ir noteiktas 5(piecas) apakš tēmas mērķa realizācijai caur kosmosa tematiku - <u>Sabiedrība</u>, <u>Kosmoloģija</u>, <u>Tehnoloģijas</u>, <u>Veselība</u> un <u>Dzīvošana kosmosā</u>. Projekta ietvaros paredzēts sagatavot izglītojošas programmas un nodarbības par dabaszinātnēm (Datorzinātne un informācijas zinātne, fizika, ķīmija, bioloģija, Zemes un vides zinātnes), inženierzinātnēm un tehnoloģijām (civilā inženierija, Elektrotehnika, elektronika, informācijas tehnoloģijas, vides biotehnoloģijas, mašīnbūve un mehānika). Atbilstoši IC stratēģijai projektam ir sekojošas mērķa grupas — skolēni, skolotāji, pirmsskolas vecuma bērni ar vecākiem. Mērķa realizācijai projekta laikā plānots realizēt sekojošas aktivitātes:

- 1) Izstrādāt un ieviest izglītojošas programmas (t.sk. izglītojošas nodarbības) skolēniem, skolotājiem un ģimenēm, kas veicina priekšmetu apgūšanu un karjeras izvēli STEM jomās;
- 2) Izstrādāt un ieviest STEM jomu popularizējošas izstādes, kas papildina izglītojošās programmas un nodarbības;
- 3) Organizēt mārketinga, publicitātes un STEM popularizējošus pasākumus.

Projekta rezultātā plānots:

- 1) izstrādāt un īstenot vismaz 3 izglītojošas programmas, kur katrā ietilpst vismaz 5 izglītojošas nodarbības mērķa grupām;
- 2) izstrādāt, izgatavot un ieviest vismaz 50 interaktīvus izstādes objektus;
- 3) realizēt vismaz 5 publicitātes un STEM popularizējošus pasākumus;
- 4) nodrošināt pieeju IC izglītojošām programmām un izstādēm vismaz 250 skolēniem no visas Latvijas;
- 5) noorganizēt skolotāju apmācības seminārus vismaz 100 skolotājiem.

Projektu plānots realizēt 36 (trīsdesmit sešu) mēnešu laikā. Projekta uzsākšanas datums ir projekta līguma noslēgšanas datums. Kopējās plānotās projekta izmaksas ir EUR 2'146'856,00 (divi miljoni simtu četrdesmit seši tūkstoši astoņi simti piecdesmit seši euro un 00 centi), no kuriem 90% veidot grants un 10% ir saņēmēja līdzfinansējums.

Projekta īstenotājs ir Cēsu novada pašvaldība. Projekta partneri ir NAROM (Norvēģijas kosmosa izglītības centrs) un Rīgas Tehniskā universitāte.

2.SADAĻA – PROJEKTA MĒŖKIS UN TĀ PAMATOJUMS

2.1. Projekta mērķis un tā pamatojums (< 4000 zīmes >)

Projekta mērķis ir veicināt zināšanu attīstību un izglītojamo karjeras izvēli STEM jomā, divpusējā sadarbībā izveidojot inovācijas centru (turpmāk — IC) Cēsīs, kurā izglītojamiem un pedagogiem tiek izstrādātas un īstenotas izglītojošas programmas, darbnīcas, koprades telpas, koprades laboratorijas un citi interaktīvi pasākumi STEM jomā. Projekta vīzija ir veicināt sabiedrības Zinātnes Kapitālu¹, iesaistoties globālo, nacionālo un reģionālo STEM izglītības izaicinājumu risināšanā, piedāvājot inovatīvus risinājumus izglītības un zinātnes popularizēšanas jomās. Projekta ietvaros 36 mēnešu laikā plānots: izstrādāt un ieviest vismaz 3 izglītojošas programmas skolēniem, skolotājiem un pirmsskolas vecuma bērniem ar vecākiem; izstrādāt un izgatavot interaktīvu izglītojošu izstādi ar vismaz 50 eksponātiem; izstrādāt un noorganizēt vismaz 5 zinātni popularizējošus pasākumus; nodrošināt pieeju IC nodarbībām un aktivitātēm vismaz 250 skolēniem un 100 skolotājiem.

Galvenais izaicinājums Cēsu novadam un reģionam, kopš neatkarības atjaunošanas ir ekonomiskās aktivitātes veicināšana. 2007.gadā pašvaldība uzsāka EEZ un NFI atbalstītu projektu "Vidzemes inovāciju un uzņēmējdarbības centrs" (VIUC) ar mērķi veicināt inovācijas un uzņēmējdarbību reģionā. Projekta laikā tika secināts, ka zinātnes centra koncepts visefektīvāk veicina inovācijām un uzņēmējdarbībai nepieciešamās vērtības starp skolēniem, jauniešiem, skolotājiem un ģimenēm. VIUC projekta rezultātā 2010.gadā Cēsīs tika atklāts zinātnes centrs ZINOO. Nepieciešamība attīstīt esošo zinātnes centru ir apstiprināta Cēsu pašvaldības 2013-2019.gada Attīstības Programmas Investīciju plānā². ECSITE (Eiropas zinātnes centru apvienības) pētījumos uzsvērts, ka nākotnē mācīšanās nebūs ierobežota tikai ar skolām - muzeji, interešu izglītība, mediji un izklaides aktivitātes kļūs par daļu no mācīšanās visas dzīves garumā³.

2020.gada 23.janvārī Cēsu novada pašvaldības domes sēdē tika apstiprināta "Cēsu Kosmosa Izziņas centra" stratēģija, kas detalizēti apraksta IC saturisko virzienu un pamato IC izveides nepieciešamību. Stratēģija tika izstrādāta balstoties uz vairākiem pašvaldības veiktiem pētījumiem un izstrādēm, tai skaitā tirgus pētījums par zinātnes centriem Eiropas Savienībā, jo īpaši Ziemeļeiropā; IC tematiskā virziena analīzi; ekonomisko ilgtspējas analīzi; zīmola stratēģiju. IC stratēģijas pamatā ir izveidot ar kosmosa tematiku saistītas nodarbības un interaktīvas izstādes. Kosmosa tematika nodrošina plašu STEM jomu pārstāvniecību dažādās inženierzinātņu un uzņēmējdarbības inovāciju jomās, ieskaitot: veselības aprūpe, pārtikas ražošana un apstrāde, materiāl zinātnes, elektronika, robotika, mehatronika, radiosakari, dizains, arhitektūra, programmēšana, u.c. Bez tam kosmosa tematika pārklāj plašu dabaszinātņu un sociālo zinātņu jomas — fizika, matemātika, astronomija, ķīmija, bioloģija, ekonomika, jurisprudence, māksla.

 $^{^{1}\,\}underline{\text{https://www.ucl.ac.uk/ioe/departments-and-centres/departments/education-practice-and-society/science-capital-research}$

² https://www.cesis.lv/images/userfiles/files/Attistibas_programma_investiciju_plans_ITI_uz_14_03_2017.pdf

³ <u>https://www.ecsite.eu/activities-and-services/news-and-publications/digital-spokes/issue-42#section=section-indepth&href=/feature/depth/stem-learning-ecosystems-critical-approaches</u>

3.SADAĻA - APLIECINĀJUMS

Es, apakšā parakstījies (-usies), Jānis Rozenbergs

Projekta iesniedzēja Cēsu novada pašvaldības

atbildīgā amatpersona, Domes priekšsēdētājs,

apliecinu, ka projekta iesniegšanas brīdī,

- 1) projekta iesniedzēja rīcībā ir pietiekami un stabili finanšu resursi;
- 2) projektā un tā pielikumos sniegtās ziņas atbilst patiesībai un projekta īstenošanai pieprasītais Eiropas Ekonomikas zonas finanšu instrumenta un Norvēģijas finanšu instrumenta 2014.—2021.gada perioda programmas "Pētniecība un izglītība" (turpmāk programma) līdzfinansējums tiks izmantots saskaņā ar projektā noteikto;
- 3) nav zināmu iemeslu, kādēļ šis projekts nevarētu tikt īstenots vai varētu tikt aizkavēta tā īstenošana, un apstiprinu, ka projektā noteiktās saistības iespējams veikt normatīvajos aktos par attiecīgās programmas mērķa vai tā pasākuma īstenošanu noteiktajos termiņos.

Apzinos, ka projektu var neapstiprināt līdzfinansēšanai programmas, ja projekts, ieskaitot šo sadaļu, nav pilnībā un kvalitatīvi aizpildīts.

Apzinos, ka nepatiesas apliecinājumā sniegtās informācijas gadījumā administratīva rakstura sankcijas var tikt uzsāktas gan pret mani, gan arī pret minēto juridisko personu – projekta iesniedzēju.

Apzinos, ka projekta izmaksu pieauguma gadījumā projekta iesniedzējs sedz visas izmaksas, kas var rasties izmaksu svārstību rezultātā.

Apliecinu, ka projekta īstenošanas laikā pašvaldības budžeta finansējums būs pieejams arī gadījumā, ja pašvaldības aizņemšanās iespējas netiek garantētas.

Apliecinu, ka esmu iepazinies (-usies), ar programmas nosacījumiem un atlases nolikumā noteiktajām prasībām.

Piekrītu projekta norādīto datu apstrādei.

Apliecinu, ka projektam pievienotās kopijas atbilst manā rīcībā esošiem dokumentu oriģināliem un projekta kopijas un elektroniskā versija atbilst iesniegtā projekta oriģinālam.

Apzinos, ka projekts būs jāīsteno saskaņā ar projektā paredzētajām darbībām un rezultāti jāuztur atbilstoši projektā minētajam.

Paraksts: Datums:

1. PROJECT DESCRIPTION

1.1.Summary: objective of the project, main activities, duration, total costs and expected (< 4000 characters>)

(information will be published after the approval of the Project)

The goal of the project is to promote development of knowledge and career choices in STEM by developing an Innovation centre (hereafter – IC) in Cesis based on a bilateral cooperation, where educational programs, workshops, co-working place, maker-labs and other interactive activities in STEM area are developed for school children and students, teachers and preschool children and their parents.

Based on the strategy of the IC approved by Cesis Municipality, above mentioned goal will be reached through a thematic direction of "space exploration". The thematic direction of space will include 5 (five) subtopics—Society; Cosmology; Technology; Healthcare; Living in Space. During the project educational content will be developed in following fields of sciences—Natural sciences (Computer and information sciences, Physical sciences, Chemical sciences, Earth and related Environmental sciences, Biological sciences) and Engineering and technology (Civil engineering, Electrical engineering, Electronic engineering, Information engineering, Mechanical engineering, Environmental biotechnology). There are following target groups identified in the strategy of the IC—school children and students, teachers, preschool children and their parents. To reach the above defined goal, it is planned to carry out the following activities:

- 1) developing and implementing educational programmes and workshops that improve learning and promote career choices in STEM;
- 2) developing and building interactive exhibitions that promote learning in STEM and complement educational Workshops;
- 3) developing and organizing STEM publicity and outreach activities.

Planned project results include:

- 1) at least 3 educational programmes (each consisting of at least 5 individual workshops) developed;
- 2) at least 50 interactive exhibits developed for the exhibition;
- 3) at least 5 STEM publicity and outreach activities organized;
- 4) access to IC educational workshops and exhibition ensure for at least 250 school children;
- 5) educational workshops for at least 100 teachers organized.

Duration of the project is 36 (thirty-six) month. Project start date is date of signing the project agreement. Total budget of the project is EUR 2'146'856,00 (two million one hundred forty-six thousand eight hundred fifty-six euro and 00 eurocents), of which 90% is a grant and 10% is co-financing of a grant recipient.

Cesis municipality is responsible for project implementation. Project partners are NAROM – Norwegian centre for space-related education and Riga Technical university.

1.2. Project objective and justification (< 4000 characters>)

Overall vision for the project is to increase science capital⁴ in a society by addressing global, national and regional challenges in STEM education through innovative solutions in education and science outreach through perspective of space exploration, space related technologies and industries. The topic of space and space exploration has a wide and deep coverage across many industries and economic sectors and learning areas, including: healthcare, food production and processing, material sciences, electronics, robotics, communication, design, architecture, computer programming, economics, law, arts; not to mention that

⁴ <u>https://www.ucl.ac.uk/ioe/departments-and-centres/departments/education-practice-and-society/science-capital-research</u>

space exploration covers a wide range of natural sciences of physics, astronomy, mathematics, chemistry, biology, and more.

The goal of the project is to promote development of knowledge and career choices in STEM using bilateral cooperation through educational programs, workshops, co-working place, maker-labs and other interactive activities in STEM for students and teachers. It is planned to develop at least 3 educational programmes, including at least 20 educational workshops and at least 50 interactive exhibits (hereinafter – Exhibits); at least 5 outreach activities are planned. At least 250 students and 100 teachers will benefit and take part in educational programs, Exhibits and outreach activities during the project.

The largest challenge for the Cesis municipality and the region since regaining of independence has been boosting economic activity. In 2007 the municipality started an NFI grant project "Vidzeme Centre for Innovation and Entrepreneurship" with a purpose to promote innovation and entrepreneurship in the region. During the project it was recognized that interactive science and technology centre concept is the most effective form of promoting values of innovation and entrepreneurship to children, teachers, families. In 2010 a science centre ZINOO was opened in Cesis. The need to develop further existing science centre ZINOO is defined in Cesis municipality Investment plan that is part of Development Programme 2013-2019⁵.

On January 23, 2020 Cesis municipality approved strategy for developing new science and innovation centre (hereafter – IC) in Cesis. The strategy was developed based on several research and analytical activities conducted by the municipality, such as market research, strategic direction analysis, economic sustainability study and branding strategy. Annex 1.1 contains Strategy Summary for the IC in Cesis that is approved by the municipality. With its central location in the Vidzeme region it is an ambition for the Cesis municipality to become regional leaders for informal science education. Also, it is expected that new IC can attract tourist families and school groups from neighbouring countries of Estonia, Russia, Belarus and Lithuania. Learning today and in the future will no longer associate only with schools - museums, after school activities, mass media and even leisure activities become part of the life-long learning.⁶

Cesis municipality strongly believes that the IC can take a leading role in promoting culture of learning in the society due to its unique ability to communicate values of learning and innovation across many groups of the society. Also, IC can generate learning experience with leisure, after school, cultural, family and career related activities.

1.3. Description of the problem and planned solutions, including description of how implementation of the project will solve the target group's needs (< 4000 characters>)

According to the National Development Plan of Latvia for 2014-2020⁷ one of the strategic objectives is "education and research". Pre-text to specific goals and Measurable Outcomes for the strategic objective states that "The main challenges to more investment in research and development include a shortage of employees in science and research". According to the National Development Plan of Latvia for 2014-2020 Strategic Objective "Development of Competencies" - for a person to be able to obtain and maintain decent employment, to take care of him or herself and his or her family and to contribute to the development of the country, various competencies – a set of knowledge, skills and attitudes – are required, such as language skills, knowledge and command of information and communications technologies, communication and cooperation skills, entrepreneurial ability, civic consciousness, creativity, ability to think critically, to plan finances, to assess risks and identify solutions to such risks. These competencies need to be upgraded throughout one's lifetime, because it is impossible to anticipate the future needs.

⁵ https://www.cesis.lv/images/userfiles/files/Attistibas programma investiciju plans ITI uz 14 03 2017.pdf

 $^{^6 \ \}underline{\text{https://www.ecsite.eu/activities-and-services/news-and-publications/digital-spokes/issue-42\#section=section-indepth\&href=/feature/depth/stem-learning-ecosystems-critical-approaches}$

⁷ https://www.pkc.gov.lv/sites/default/files/inline-files/NDP2020%20English%20Final 1.pdf

To ensure achievement of national development strategy goals there is a need for higher results in STEM related subjects in schools. Yet, the national statistics indicate a falling tendency in centralised examination results, especially in mathematics⁸. Besides, there is growing need for new teachers in STEM related subjects⁹. In total there is a need for over 500 teachers across the country. Both tendencies - falling examination results and lack of teachers, are correlating. And above all, in 2019 national government has approved a new primary and secondary education curriculum¹⁰ that is based on developing student competencies, instead of knowledge alone. With new education standard teachers and schools can experience additional challenges in delivering curriculum and improving teaching and examination results.

To address the above-mentioned challenges IC in Cesis will focus on 3 main activities within the project:

- 1) <u>Educational programmes and workshops</u>. Developing and implementing interactive workshops for school children and students, preschool children and their parents and teachers. The purpose of programmes and workshops is to provide learning experience in engaging and interactive way that aligns with education curriculum. They will help to increase learning results in schools and promote a culture of curiosity.
- 2) <u>Educational Exhibitions.</u> Developing and building interactive educational exhibits will help teachers and schools to enhance learning process and achieve educational goals. It will help make a learning process more attractive and real-life oriented. Primary target audiences for Educational Exhibitions are school children, and preschool children and their parents.
- 3) <u>Publicity and outreach activities.</u> Organizing publicity and outreach activities will stimulate a culture of learning and curiosity and help schools to supplement education process and therefore increase examination results. Primary target audiences for Publicity and outreach activities are school children, university students and families.

All the activities are based on the IC strategy approved by the Cesis municipality and will ensure access to students and teachers from all the country. To ensure that space related activities cover as much STEM subjects as possible, educational content will be developed in following fields of sciences – Natural sciences (Computer and information sciences, Physical sciences, Chemical sciences, Earth and related Environmental sciences, Biological sciences) and Engineering and technology (Civil engineering, Electrical engineering, Electronic engineering, Information engineering, Mechanical engineering, Environmental biotechnology).

1.4. Description of the project target group, involvement of target groups in the planned activities, incl. at local, regional and national level (< 4000 characters>)

Educational Programmes and Educational Workshops are at the core of the IC activities. Development of infrastructure, mobile equipment and educational installations serve the purpose of delivering new insights, knowledge, skills and values in an engaging and playful manner. According to the research conducted for the branding strategy three main target groups have been identified in the following priority:

1) School children (primary and secondary school) and students as future members of the society who should find learning new skills and knowledge as fun even if it's hard; who should learn to solve complex problems of the future; who should learn to work in a team. Based on previous experience at science centre ZINOO, it is widely observed that school children are mostly struggling with understanding real life practical application from curriculum thought in a school. Also, it is observed that children are missing feelings of playfulness, challenge and adventure during their time at school. Workshops, Adventure packs, Summer camps, Educational projects and Competitions will be designed in a way to make children engaged in the process of learning through games, challenges and fun. Local children will have a possibility to join weekly activities while all the other activities will be available at national and international level.

 $[\]frac{8 \text{ https://www.lsm.lv/raksts/zinas/latvija/centralizeto-eksamenu-rezultati-kritas-saeimas-komisija-prasa-izm-planu-problemas-risinasanai.a30836/}{}$

https://www.lsm.lv/raksts/zinas/latvija/neiespejama-misija-rigas-skolas-cinas-ar-pedagogu-trukumu.a330680/
 https://www.izm.gov.lv/lv/aktualitates/3482-jaunais-izglitibas-standarts-skolam-nodrosinas-lielakas-iespejas-padzilinati-istenot-dazadus-macibu-prieksmetus

- 2) Teachers as a cornerstone of every educational process who can inspire children to pursue specific careers; who can create positive associations towards learning; who can teach the critical thinking. General challenge for teachers is high administrative load that reduces available time for developing new curriculum activities in a classroom. With new educational standards and competency-based curriculum it is even more challenging for teachers to find time for developing curriculum activities that are not just educational but also inspirational for the children. Many of educational workshops that are developed for the IC can also be introduced fully or partially in the classroom as a curriculum activity. Local and regional teachers will be involved in developing and testing teacher courses, while actual training will be available to teachers at national level. During projects methodological manual will be developed for educational programmes and workshops for teachers to use in classroom.
- 3) Preschool children (kindergarten and elementary early education) and their parents. Numerous scientific articles¹¹ indicate that children copy learning models and patterns primarily from their parents. These aspects create a need for parents to find a free-time activity that is family-binding, recreational (fun, engaging) while also educational. Active family engagement will ensure a children motivation to reach better results in schools and pick up STEM and help teachers to deliver competency-based education standards. Preschool children and their parents at local, regional and national level will be involved in developing and testing educational workshops.

¹¹ https://www.sciencedirect.com/search/advanced?qs=children%20learning%20models%20parents

1.5. Pi	roject activities and	expected results				
No.	Project activity*	Description of Project activity	Description of Results	Results		Involved partners**
No.	Project activity	(<2000 characters for each activity >)	Description of Results	Qty	Unit of measurement	
1.	Developing, testing and implementing Educational Programmes	Educational Programme is a set of educational activities that is delivered as a series of separate workshops over period of time and is recognized and licenced by local educational board. Educational Programmes can be implemented in IC as an activity for school children, as well as in local or regional education institutions. At least 3 Educational Programmes, that will cover different space related topic and provide STEM related learning experience and practical STEM related skill development for participants through series of workshops, will be developed, tested and improved on month 1-24 of the project, implemented and delivered on month 12-30 of the project schedule. Key resources to develop and implement Educational Programmes and workshops include: 1) competent and motivated personnel (see project application Part 2 – Project Implementation), 2) premises (see project application Part 2 – Project Implementation), 3) participants (students, teachers) For each Educational Programme detailed Methodological Manual will be developed, that includes time schedule of activities, presentations, learning materials, worksheets, lists of resources, parts and connection to curriculum covered, etc. Methodological Manuals will be used for delivering educational programmes and for teacher training as material, that can later be used in classrooms.	Educational Programmes developed and implemented	3	Number of Educational Programmes	No.1

		Every Educational Programme will be licenced in local education board according to local regulation on licensing interest education programmes. Before delivering each Educational Programme all relevant tools and materials according to developed Methodological Manual will be purchased or created. Each Educational Programme will be prepared and delivered for at least one group of up to 20 school children.				
1.1.	Developing and implementing Educational Workshops for school children	Educational Workshop is an educational hands-on activity that covers space related topic that is related to school curriculum and develops specific competency and/or skills of participants. Every Educational Workshops involves various tools and materials to deliver specific skills and knowledge according to school curriculum. There is a plenty of space related workshops developed by ESA ¹² and NASA ¹³ that needs to be translated and adapted to local needs and aligned to local curriculum. Educational Workshops can be implemented in IC as an activity for school children and preschool children with parents, as well as in local or regional education institutions. Prior to the project new (recently approved) state curriculum for the schools was analysed to identify how specific curriculum topics can be delivered through space-related topics. Additionally, support from NAROM (Norway) has been promised in developing and introducing	Educational Workshops developed and implemented.	20	Number of Educational Workshops	No.1

¹² https://www.esa.int/Education

¹³ https://www.nasa.gov/stem

At present moment the municipality owned science centre ZINOO has already implemented several space-related workshops for various age groups (such as – air pressure rocket, water pressure rocket, landing of egg astronaut, Morse code, testing electromagnetic waves, experiencing vacuum). This indicates that there is already a stable process and experience on how to develop new space-related workshops.

At least 20 different space related Educational Workshops, that will provide STEM related learning experience and practical STEM related skill development for participants, will be developed, tested and improved on month 1-24 of the project, implemented and delivered on month 12-30 of the project schedule. Some of Educational Workshops will be based on using interactive Exhibits developed during project in engaging way.

Every Educational Workshop for school children groups will consist of 3 interlinked elements:

- 1) before actual activity in the IC, teachers will get a guidelines and materials to deliver theory or basic know-how in a classroom as preparation activities prior to actual workshop;
- 2) after classroom activity children can visit the IC to take part in a Educational Workshop that involves development of specific competencies;
- 3) after the on-site activity teachers will get a short guide on how to do a reflection on the activity in the classroom and how to link learning competencies in the IC to other curriculum elements.

For each Educational Workshop detailed Methodological Manual will be developed, that includes description of activities, presentation, learning materials, worksheets, lists

	1				I	
		of resources, parts and connection to curriculum covered, possible preparation activities in classroom prior to actual workshop, etc. Methodological Manuals will be used for delivering Educational Workshops and for teacher training as material, that can later be used in classrooms.				
		Before delivering each Educational Workshop all relevant tools and materials according to developed Methodological Manual will be purchased or created. Each Educational Workshop will be prepared and delivered for at least one group of up to 25 school children.				
1.2.	Developing and implementing Teacher training programmes	Teacher training programme consists of 5 workshops for teachers of any background on how to inspire children for learning through topics of space. Teacher training programmes will be developed, tested and improved on month 12-24 of the project, implemented and delivered on month 20-30 of the project schedule.	Teacher training programmes developed and implemented	3	Number of Teacher Training programmes	No.1
		There will be 3 different programmes available for: a) elementary and pre school teachers; b) primary school teachers; c) secondary school teachers.				
		Every developed Teacher training programme will be licenced in local education board according to regulation on teacher professional development.				
		Every programme will cover 5 main elements in workshops that correspond to the teacher group: a) Inspirational aspects of space exploration or how teachers can inspire children towards space				
		explorations; it will include methodological advices to teachers on how to create emotional attachment to space exploration and STEM. b) Online tools that can be used in classroom to teach about space related STEM topics; there is already				

1.3.	Developing and	online resources, like Space Awareness ¹⁴ , that provide tools to teachers; those resources should be classified and adopted to local curriculum needs. c) Educational Workshops that are available from IC in Cesis or other organizations that can be used as part of classroom activities or during the out-of-class activities. d) Space industry highlights to give teachers general understanding of what is happening in a global space industry – what are current accomplishments; why these accomplishments are important for improving life on earth, global space development tendencies and challenges. e) Methodological manual - how to use IC developed Educational Programmes and Educational Workshops in classroom. Methodological manuals developed for Educational Programmes, Educational Workshops and Educational Student competitions will be used for primary and secondary school teacher courses, while methodological manuals developed for Adventure Packs will be used for elementary and pre-school teachers. Before delivering each Teacher training programme all relevant tools and materials according to programme will be purchased or created. Each Teacher training programme will be prepared and delivered for at least one group of up to 35 teachers, providing teacher training for at least 100 teachers. Educational Camp is an educational event that provides in	Educational Camp developed	3	Number of	No.1
1.3.	implementing Educational Camps	depth learning experience for target groups in a short period of time and allows participants to develop deeper insight,	and implemented	3	Educational Camps	INU.1

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¹⁴ http://www.space-awareness.org/en/skills/

skills and competencies, while increasing interest in topic covered and STEM.

At least 3 Educational Camps related to the topics of space and STEM mostly for school children and students are planned. Educational Camps are organized using existing infrastructure (building, installation, mobile equipment). Educational Camps will be developed, tested and improved on month 6-30 of the project, implemented and delivered on month 10-30 of the project schedule.

During the preparation of the project current team of IC in Cesis has visited a European Space Camp in Andoya, Norway to learn how European Space Camp is organized and what are the technical, organizational and educational challenges to be addressed if a similar activity is to be organized in Latvia. Management of NAROM has approved that a detailed help will be provided in developing and implementing similar activity in Latvia.

The plan is to at implement at least 3 various thematic Educational Camps in Cesis:

- 1) Rocket Camp, similar to the camp that is organized in Andoya, Norway and focuses on secondary school students and first year university students.
- 2) <u>Astronaut Camp</u>, that is organized around the topic of becoming an astronaut; the camp will include numerous challenges, space mission simulations, fixing and developing electronics and much more; primarily the audience of the camp are primary school students.
- 3) Space Camp will focus on various space-related inspirational activities, like building air pressure rockets, water rockets, playing space-related role games, etc.; primary audience of the camp are elementary school students.

		For each Educational Camp detailed programme will be developed with time schedule and activities and responsible persons leading each activity, each camp will be led by person with necessary legal requirements. Each Educational Camp will be registered and organized according to local and national regulation on organizing camps for children. Before delivering each Educational Camp all relevant tools, arrangements (place, catering, etc.) and materials according to programme will be purchased or created. Announcement for participant selection will be made at least two months before Educational Camp. For each of 3 Educational Camps a group of at least 20 participants will be selected.				
1.4.	Developing and implementing Educational Student Competitions	Educational Student Competition is event where a team of participants compete for a prize over longer period of time where skills, knowledge and teamwork are the main predictor of the winner. During Educational Student Competitions participant teams will plan, design and create their projects according to rules of competition. Student competitions help bring about a participant's best effort by inspiring creativity and challenging the student to utilize their skills.	Educational Student Competition developed and implemented	3	Number of Educational Student Competitions	No.1
		Development and implementation of every Educational Student Competition involves several stages: 1) preparation of detailed programme, time schedule and rules for competition; 2) detailed manual for competitors and teachers (mentors for teams) developed; 3) procurement of materials or tools needed for participant teams were applicable; 4) open announcement of competition and call for participants from all Latvia made; 5) on site or online support workshop organized if necessary for participants or team mentors;				

- 6) providing relevant materials, tool kits, manuals for participating teams;
- 7) competition process (depending on competition) where participants prepare their project/fulfil tasks necessary;
- 8) competition event (online or onsite) with presentations of results/projects (or submission event) organized and held;
- 9) evaluation and announcement of results;

Educational Student Competitions will be developed, tested and improved on month 6-24 of the project, implemented and delivered on month 10-30 of the project schedule. During the project it is planned to implement at least three Educational Student Competitions in Latvia from the following list of Educational Student Competitions related to space:

- 1) "CanSat". Teams of high-school students during their school year are developing a satellite that can fit in a soda can; the format of the competition is developed by European Space Agency¹⁵.
- 2) "Mission X". Teams of primary school students during their school year are training physically and mentally like astronauts; the format of the competition is developed by European Space agency¹⁶.
- 3) "European Rover Challenge". Teams of University students are building rovers for moon and Mars missions; the format of the competition is developed by European Space Foundation¹⁷.
- 4) "Moon Camp Challenge". Teams of primary or secondary school students first have to develop a number of scientific interdisciplinary experiments

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¹⁵ https://www.esa.int/Education/CanSat

https://www.esa.int/Science Exploration/Human and Robotic Exploration/Education/Mission X - Train_like an_astronaut

¹⁷ http://roverchallenge.eu/

	Т					1
		to explore the extreme environment of space and				
		understand how astronauts could live on the Moon.				
		Then they have to design their Moon Camp, which				
		should be adapted to the Moon environment,				
		consider the use of local resources and provide				
		protection and living and working facilities for the				
		astronauts. This competition is developed by				
		European Space Agency ¹⁸ .				
		5) "Stomp rockets". Teams of elementary and primary				
		school students are building a perfect air powered				
		paper rocket and competing on how far the rocket				
		can fly; secondary school students can participate				
		by building their own air pressurized launch				
		mechanism; the concept of the competition has				
		been tested during a "Space Festival" organized by				
		IC in Cesis in 2013.				
		6) "SpaceRace" is competition for high school				
		students on building, launching and retrieving a				
		stratospheric balloon probe; the concept of the				
		competition has been tested during a "Space				
		Festival" organized by IC in Cesis in 2016.				
		In case of using competition models "CanSat", "MissionX",				
		"European Rover Challange" or "Moon Camp Challange"				
		local competition will be created – rules adopted, events				
		aligned and planned according to previously described.				
		Organizer of international event will be contacted for				
		permission to adopt and organize similar even in Latvia.				
1.5.	Developing and	Adventure Pack includes variety of space exploration and	Adventure Packs developed	10	Number of	No.1
	implementing	STEM related educational activities that involves a series	and implemented		Adventure	
	Adventure Packs	of tasks and experiments that can be completed within 40 –			Packs	
		90 minutes (depending of children's age) for children				
		(including pre school and elementary school children) and				
		their parents.				

¹⁸ https://mooncampchallenge.org/

Adventure Packs will be developed, tested and improved on month 12-24 of the project, implemented and delivered on month 20-30 of the project schedule. It is planned to develop at least 10 Adventure Packs on various topics (astronaut training, food, rocket science, etc). Every Adventure Pack will be developed to include several elements from curriculum, that are directly related to the topic of the adventure. Every Adventure Pack will consist of several level activities that can be used depending of participants age (for smaller children less complex activities for older more complex and challenging).

To achieve best learning outcomes parents will have to take an active role during activity. Before the activity parents will be instructed on how to deliver maximum learning skills to their children during the activity and increase learning results. During the activity participants will be assigned various roles and provided with needed tools to accomplish the tasks planned during the activity. At the end of the activity participants will be able to analyse its performance and draw conclusions on their teamwork, learning outcomes and personal growth. After the activity participants will be asked to submit a feedback to further improve activity.

For each Adventure Pack detailed Methodological Manual will be developed, that includes description of activities, learning materials and instructions, worksheets, lists of resources, parts and connection to curriculum covered, reflection and feedback questions etc. Methodological Manuals will be used for delivering Adventure Packs and for teacher training as material, that can later be used in classrooms.

Before delivering each Adventure Pack all relevant tools and materials according to developed Methodological Manual will be purchased or created. Each of 10 Adventure

		Packs will be prepared and delivered for at least 5 groups of				
		up to 5 children and their parents.				
2.	Developing and	Interactive educational exhibition consisting of various	Exhibits developed and	50	Number of	No.1
	implementing	mobile learning equipment - Exhibits will be developed,	implemented		Exhibits	No.2
	interactive	tested and improved on month 1-30 of the project,				
	exhibitions	implemented and delivered on month 12-34 of the project				
		schedule.				
		From previous experience, running existing IC in Cesis,				
		Exhibits are the most effective learning tool as it allows to				
		use all the senses – visual, touch, sound and even smell, to gain new knowledge, skill or competency. It is interactive				
		way for participants and target groups to experience				
		learning and gain knowledge.				
		Tourning and gain knowledge.				
		It is planned during the project to develop at least 42 new				
		Exhibits throughout the whole period of the project and				
		through procurement procedure obtain 8 prefabricated				
		Exhibits. All the Exhibits will be space theme oriented, that				
		explain and allow to experience STEM related topics				
		through interaction.				
		Development and implementation of Exhibits follows a				
		similar process whatever the thematic orientation:				
		1) Defining the learning outcome of the planned				
		Exhibit – understanding the target group; defining				
		target group needs (emotional, curriculum,				
		professional, etc); defining socioeconomic				
		issues/challenges/tendencies that need to be				
		addressed. Based on all previous specific emotional				
		and intellectual outcomes are defined.				
		2) Defining key elements of the Exhibit – what are the				
		possible technical, visual, audio, sensual and other				
		tools that can deliver the needed outcomes.				
		3) Defining technical specifications – based on the				
		elements that can deliver needed outcomes it is				
		necessary to design a concept of the Exhibit,				

- including what are the materials and components used; during this process it is necessary to take in account numerous aspects, including overall visual design of the IC, branding, user interface, user ergonomics, biomechanics, etc.
- 4) Creating and testing the Exhibit during the actual development process there might be aspects of the Exhibit that have to changed or improved to ensure maximal durability and make exhibit more userfriendly.
- 5) Developing technical manual every exhibit needs a simple description on how to do basic maintenance, repairs, rebooting, etc.
- 6) Developing Learning manual there can be several learning activities for one Exhibit

For each of Exhibits there will be detailed description created (learning outcomes, key elements, technical specification); relevant hardware and software developed (or purchased) and tested; detailed technical manual developed; and detailed learning manual developed.

Learning manual for Exhibit consists of guidelines for using it in educational activities. All Exhibits can and will be used as part of Educational Workshops (see Activity 1.1.), Educational Camps (see Activity 1.3.) and Adventure Packs (see Activity 1.5.) where applicable.

Annex 1.2 contains a list of ideas for educational exhibits (ideas – in English, descriptions - in Latvian) and a list of ideas for educational installations (in English), both developed as part of the IC strategy. Educational exhibits and installations will form a unified exhibition to compliment the educational workshops. Final list of educational exhibits and installations will be decided during the project, based on the workshops developed. Cost of material for production of Exhibits is calculated based on

		existing Municipality experience of building exhibits at ZINOO in Cesis, as well as experience from other science centres in Scandinavia. It is planned to develop and build Exhibits using current infrastructure of the Cesis municipality – a technical workshop at current IC in Cesis, where most of the current Exhibits have been produced. For more complicated Exhibits, it is planned to involve Riga Technical university as the project partner in developing technical specifications. Complicated components (electronics, curved surfaces, sensors, screens, etc) will be purchased through procurement process. Some Exhibits that are too complicated to produce will be purchased through procurement process. Some of first Exhibits created will be used for showing in schools when delivering Educational Workshops and other activities in schools. Later all Exhibits will be available in IC Cesis.				
3.	Outreach activities	Outreach activities will be developed on month 1-30 of the project, implemented and delivered on month 6-36 of the project schedule. Main goal for outreach activities is to increase science capital and promote space exploration and STEM among target groups, involve project partners in wider discussion about STEM education and role of IC in promoting interest of STEM education among young people. There are 3 outreach activities planned during project — opening event of IC in Cesis, public discussion on raising science capital and interest in space exploration and STEM among school children, and event involving local celebrities taking part in educational STEM related activity.	Outreach activities developed and implemented	3	Number of outreach activities	No.1 No.2

		For each outreach activity there needs to be plan developed involving description of activity, time schedule, participant selection (invitation), necessary media activities for promotion. Implementation team has experience with organizing more than 30 various outreach activities since 2010 in various formats – seminars, conferences, festivals, science outreach activities, public events. Annex 2 contains a list of projects organized by ZINOO in Cesis from 2012 – 2019.				
3.1.	Promoting and participating in Space Camp	During the project it is planned to develop and implement space-related Educational Camps in Cesis (see activity 1.3.). To further promote STEM education and interest from target groups it is planned during the project to provide funding to at least 6 (2 per year) highly motivated secondary school or university 1st year students to take part in European Space Camp at Andoya Space Centre. Previous experience of project partner NAROM indicates that students that are taking part in the Space Camp can become organizers of the camp in following years. This can ensure that students involved in organizing the camp can also develop management and organization skills. All costs related to ensuring participation in the Space Camps (training, transportation, catering, accommodation, materials, etc) will be covered from project funds. Promotion and participation in Space Camp will be done on month 6 -30 of the project. To ensure larger outreach and rise interest open call for participants will have to provide motivation and participate in activities to be selected for participation and representing	Participation in European Space Camps.	6	Number of Space Camps Number of participants from Latvia in European Space Camps	No.1 No.2

		Latvia in European Space Camp. Possibly place could be offered as prize in one of Educational Student competitions organized in Latvia (see activity 1.4.) It is also planned to develop a video for social media or television about the experience of Latvian participants in the European Space Camp. Purpose of the video is to promote space exploration and STEM as carrier choice.				
3.2.	Promoting and participating in European space related educational student competitions	During the project it is planned to organize Educational Student competitions for school children and students (see activity 1.4.). The long-term goal for IC in Cesis is to organize at least 2 (two) self-sufficient competitions every year after completion of the Project on local and national level. To further increase outreach and interest of school children and students in participating in such competitions and increase interest in STEM related activities it is important to promote possibilities for teams to take part in European or World level educational student competitions, like "CanSat", "MissionX", "European Rover Challange" or "Moon Camp Challange". To ensure best results it is planned that during project there will be support and help provided for Latvian teams to take part in mentioned international competitions. Were best teams from Latvian competition (see activity 1.4.) would be encouraged and supported to take part in international competitions. It is planned that at least 2 teams from Latvia will take part in three different international educational student competitions. Promotion and participation in Space Camp will be done on month 8 - 30 of the project. Also, it is planned to produce a promotional video about experience of Latvian teams participating in the	Participation in European space related educational student competition	6	Number of educational student competitions Number of teams from Latvia participating in international educational student competitions	No.1 No.2

		international competition for social media or national television. Purpose of the video is to promote future space-related competitions in Latvia, possibilities for school children and students and to promote space exploration and			
		STEM as carrier choice.			
3.3.	Organizing Space Festival in Latvia	Cesis has experience of organizing space festivals since 2013. In total 4 festivals have been organized. Primary audience for the festival are preschool children (kindergarten and elementary early education), school children and their parents. The standard concept of the festival includes: 1) hands-on workshops to build something (stomp rockets, water rockets); 2) get involved in some physical activities and/or competitions (astronaut training competition, paper rocket competition, etc); 3) take part in specific lectures or seminars; 4) meet inspiring people (astronauts, rocket builders, scientists); 5) see space related technology demonstrations (sounding rocket launch, mars rover, etc); It has proved from pervious events that a such space festival as public event is an effective outreach tool that allows to: 1) promote the IC and what it will be offering; 2) increase since capital in the society; 3) possibility to attract media attention; 4) increase interest in STEM activities. It is planned to organize at least one Space Festival in Cesis at the end of the project with at least 150 participants, but with a long-term perspective to organize similar events in other regions around Latvia. It is also planned to invite ICs from other cities to participate in the festival. Organizing Space Festival in Cesis will be done on month 24 -36 of the project.	Space Festival organized	Number of Space Festival organized	No.1 No.2

		To organize and implement Space Festival there needs to be festival concept and programme developed, place of venue and all necessary equipment procured, partners and other relevant participants contacted and invited, invitations sent to media, promotion of event done, all the necessary planning and stuff for implementation organized. It is also planned to develop a video for social media or television about the Space Festival. Purpose of the video is to promote space exploration and STEM as carrier choice.				
3.4.	Creating traveling set and participating in other public events	During the project and after the project it is intended to participate in various public events to promote the IC and space related STEM careers in engaging and educating way. To represent the IC in a public event it is required to develop the following: 1) a tent that can be easily deployed and removed; 2) a set of simple and interactive exhibits; 3) workstations for simple educational workshops; 4) worker uniforms; 5) marketing and promotional materials; The traveling set should be developed in a way to be transported on a trailer by a car or a minivan. IC in Cesis has transport that can be equipped for transporting the traveling set. Also, the IC has a power generator that can be used for running the traveling set in remote areas. Creation of traveling set will be done on month 6 - 12 of the project. Participation in other public events will take place on month 12 – 34 of the project. It is planned to participate in at least 3 public events during the project with the traveling set. Some of the public events that would be most suitable are neighbouring city celebrations, science festivals, tourism fairs, etc	Creating traveling set and participating in other public events	1 3 6	Number of traveling set Number of public events visited with the traveling set. Number of schools visited with the traveling set.	No.2

It is planned to use traveling set as mobile equipment and tool for school visits, where traveling set can be deployed and Educational Workshops (see activity 1.1.) or Adventure Packs (see activity 1.5.) can be implemented for several groups of school children as event. It is planned to visit at least 6 schools during project.		
least o senoois during project.		

^{*} Project activities should be the same as in the project Time schedule. All activities should be listed-both those carried out prior to the approval of the Project and those planned after the approval of the Project.

** Number of the involved partner from Table 1.8

1.6. Indicators

1.6.1. Outcome Expected project results – enhanced knowledge development of STEM									
	Expected project	resurts – em	Target value	Unit of					
No.	Indicators	Year	Intermediate value	Final value	measure ment	Notes			
1.	Number of pupils and students who benefited from education and training programmes organised in Innovation Centres (disaggregated by gender, age)	2023	-	250	Number of pupils and students				
2.	Share of teachers who self-reported improved competencies in STEM	2023	-	≥80%	%				
3.	Share of pupils and students who self- reported increased interest in STEM	2023	-	≥80%	%				

	1.6.2. Outputs								
No.	Name of Result	Baseline value Year Value		Target value	Unit of measurement	Notes			
1.	Number of teachers involved in educational and training programmes and workshops (disaggregated by gender)	-	-	100	Number of teachers				
2.	Number of education and training programmes implemented in the IC	-	-	3	Number of programmes				

1.7. Place of Project implementation				
1.7.1. Project implementation address*				
8 Jana Poruka str., Cesis, LV-4101, Latvia	Address of implementation before the construction of the main building is finished in beginning of 2022.			
63 Cirulisu str., Cesis, LV-4101, Latvia	Address of implementation after the construction of the main building is finished.			

^{*} The actual address of the project implementation, if several sites are planned, please include additional table (s)

1.8. Partners				
1.8.1. Name of Partner*	Norwegian Space Education Centre (NAROM)			
Tax identification number	982222559			
Partner type	Norwegian science centre			
Turner type	Bleiksveien 46, 8480 Andenes			
	·			
Legal address	Norway Andenes Postal code: 8480			
	E-mail: post@narom.no			
	WWW: www.narom.no			
	Joran Grande			
Contact person	Position: Director of Education			
	Phone No.: (+47) 76 14 46 52			
	E-mail: joran@narom.no			
A 11 f 1	Street house No			
Address for correspondence (to be completed if differs from the legal	Street, house No. City County Town or			
address)	Carly Town or Parish			
,	Postal code			
Justification of Partner selection (incl. involvement of Partner and benefits of participating in the project)	NAROM is the only space-related education institution in Scandinavia. Cooperation with NAROM has started already in 2018 at a meeting in Trondheim, Norway. Since then there have been 1 strategic partnership meeting in Latvia and 2 study visits to space-related events in NAROM – CanSat competition and Space Camp. The main reason for cooperation is that both organizations share the same strategic goals and values. There are several areas of cooperation that can bring a mutual benefit, including: 1) development of new and improvement of existing space-related summer camp programs; 2) development of various curriculum related inschool educational programmes and workshops; 3) development and testing of engaging educational workshops for families; 4) development and implementation of new outreach tools;			
1.8.2. Name of Partner	Riga Technical University (RTU)			
Tax identification number	90000068977			
Partner type	University			
	1 Kalku str.			
	Riga Latvia			
Legal address	LV-1658			
	infocentrs@rtu.lv			
	www.rtu.lv			

	Tālis Juhna			
Contact person	Vice rector of science			
	+371 67089415			
	Talis.juhna@rtu.lv			
Address for company and an ac	Street, house No.			
Address for correspondence (to be completed if differs from the legal address)	City	County	Town or Parish	
,	Postal code	ı		
Justification of Partner selection (incl. involvement of Partner and benefits of	RTU is the largest STEM related university in Latvia. The main reason for cooperation is that both organizations share the same strategic goal of promoting more STEM related career choices among young people. Cooperation with RTU and its local chapter in Cesis has been active since 2018 in organizing common outreach projects, developing new mobile exhibits and developing educational workshops. RTU will contribute to the goals of the project by providing their technical expertise in designing and developing save, ergonomic and interactive mobile			
participating in the project)	learning equipment (Exhibits). The process of developing Exhibits will involve university students, post-docs and academia, thus providing a unique and practical learning environment. The project will also benefit by using existing production infrastructure that is not available in Cesis, like – laser cutters, industrial 3D printers, milling and other equipment. As a cooperation partner RTU will benefit from participation in the project by participating in and disseminating outreach activities to promote STEM related career choices among young people.			

^{*} Information shall be provided for each partner

2. PROJECT IMPLEMENTATION

2.1. Project implementation capacity, incl. the degree of maturity of the Project Management capacity (<4000 characters>) The core management team has experience of more than 5 years in administering EU funded projects. Project management team will be comprised of the following position and respective responsibilities: 1) Project Coordinator – Mr.Edijs Leoke (CV in Annex 3.2), responsibilities include: collecting reports from implementation team and group members, organizing Management team and Implementation team meetings at least twice a month, following realisation and time schedule of project, organizing Steering Committee meetings and agenda, preparing reports to Steering Committee and Donor organizations. Workload around 20 hours per month.

- 2) Project Procurement Specialist Ms.Santa Smiltniece (CV in Annex 3.3), Responsibilities include: preparing procurement documentations, announcing procurements, organizing procurement evaluations, preparing procurement agreements. Workload around 40 hours per month.
- 3) Project Accountant(s). One or several project accountants will be hired in the project from current accounting department of the municipality. Accountant(s) will be selected based on the project status, project needs and availability of personnel. Responsibilities include: following budget expenditures, planning cash-flow, approving payments, registering payments in bookkeeping system, communicating with Implementation Team and Group members. Workload around 20 hours per month.

It is planned that project management capacity will be a part-time responsibility for the employees of the municipality. To ensure that municipality employees assigned to project management have a sufficient capacity, some of regular tasks and activities of the municipality employees, that are assigned for project management, will be reassigned to other municipality employees by their direct superiors. If needed workload will be adjusted according to actual needs and workload during project.

Financial capacity (<4000 characters>)

The Cesis municipality has enough of financial resources to support the project. For the implementation of the project municipality is planning to apply for a loan in a State Treasury for 25-year term. Current budget of the municipality is sufficient to cover interest payments for long-term credits and loans from the State Treasury. Budget of Cesis Municipality for year 2020 is strictly balanced to meet the current needs of the municipality with development and growth needs, both balanced to keep financial liabilities at a safe level of 13% from the total active budget.¹⁹

In the case if the municipality does not receive a loan from State Treasury needed to finance the Project, missing funds will be covered from main budget of the municipality. For the past 3 years active budget of the municipality has a stable increase – 6,7% increase in 2020 compared to 2019; 4,4% increase in 2019 compared to 2018; 4% increase in 2018 compared to 2017. On January 23, 2020 Council session of the municipality decided to support application for the Project with all related financial liabilities²⁰.

With planned unification of several surrounding counties in 2021 the financial capacity of Cesis municipality will be strengthened even further. Also, the municipality has a very well trained and professional staff with extensive experience in managing large international projects. Previous experience will ensure that there will be a very thorough financial planning and execution of available resources.

In case of prolonged effects of COVID-19 Pandemics on the local economy and tax revenues, the municipality is ready finance the co-funding of the IC project.

¹⁹ https://www.cesis.lv/lv/novads/aktualitates/zinas/pasvaldiba/apstiprinats-budzets-prioritate-infrastruktura-unsatiksmes-drosiba/

²⁰ https://www.cesis.lv/images/userfiles/files/sezu%20protokoli/2020/domes_sede_23012020_protokolsNr2.pdf

Implementation capacity (<4000 characters>)

For project implementation it is planned to establish the following key positions and corresponding responsibilities:

- 1) Project Head Mr.Pauls Irbins (CV in Annex 3.1),
 Responsibilities include: managing the implementation team,
 organizing team meetings, defining weekly and monthly goals for
 team members, establishing strategic partnerships with
 Universities, companies and NGOs, developing and implementing
 sustainable business model, looking for future projects and
 partnerships, reporting to Steering Committee, ensure cooperation
 with administrative team and implementation team.
- 2) <u>Head of Education Mr.Edgars Bajaruns</u> (CV in Annex 3.4). Responsibilities include: developing testing and implementing Educational Programs and Workshops (Activity 1). Reporting directly to Project Head. Managing his team of Workshop experts, Edunaut for Schools, Edunaut for other target groups, External expertise from industry experts.
- 3) Head of Exhibitions Mr.Ansis Rezgalis. (CV in Annex 3.5). Responsibilities include: developing, testing and implementing interactive exhibitions (Activity 2). Preparing tasks for project manager at RTU. Reporting directly to Project Head. Managing his team of application Engineer from RTU in Cesis, production Engineer, mechanical Engineer, external expertise from RTU students and Academia.
- 4) Head of Outreach Ms.Sandra Kropa (CV in Annex 3.6). Responsibilities include: developing visual elements, promoting the project and the IC to relevant target audiences through social and other media, working with media and supervising outreach events (Activity 3). Reporting directly to Project Head. Managing her team of external experts hired to deliver specific technical expertise that is not available in the team, like development of a homepage, design, online registration and payment system, video production.
- 5) Project Manager at NAROM Mr.Joran Grande (CV in Annex 3.7). Responsibilities include: coordinating development of educational workshops with Head of Education, coordinating outreach activities with Head of Marketing and Outreach. Reporting directly to Project Head. Managing his team of education expert Ms.Bente Jensen (CV in Annex 3.8) and other (including external) experts based on specific needs discussed with Project Head and Head of Education.
- 6) Project Manager at RTU Mr.Kristens Raščevskis (CV in Annex 3.9). Responsibilities include: coordinating development and production of exhibitions at RTU with Head of Exhibitions, coordinating outreach activities with Head of Marketing and Outreach. Managing his team of technical design engineer Mr.Toms Mūrnieks (CV in Annex 3.10), electronics design engineer Mr.Guntars Miezītis (CV in Annex 3.11) and students involved in development and design of interactive exhibitions or other (including external) experts based on specific needs discussed with Project Head and Head of Education.

Other specialists (that are not yet selected) will be chosen and selected on the actual needs during the implementation, such as:

1. Workshop expert; responsible for developing Methodological Manuals, Educational Workshop implementation and testing of Methodological Manuals; detailed requirements and previous

- experience will be defined during project implementation based on actual needs.
- 2. Edunaut and Edunaut for other target groups, responsible for delivering Educational Workshops, Teacher Programs, Educational Camps, Adventure Packs; detailed requirements and previous experience will be defined during project implementation based on actual needs.
- 3. Exhibit specialists application engineer from RTU in Cesis, Production Engineer, Mechanical Engineer, responsible for exhibit development, assembly, testing and installation; detailed requirements and previous experience will be defined during project implementation based on actual needs.

Process of specialist selection consists of:

- 1. specialist tasks and selection criteria defined by Head of Education or Head of Exhibitions, approved or corrected by Project Head;
- 2. announcement of the position published in official municipality webpage and social media;
- 3. candidates evaluated and selected by group decision of Project Head, Head of Education and Head of Exhibitions.

Some of implementation capacity and previous experience is already available at municipality, that is used by current science centre ZINOO (project Implementation place before the construction of the main building is finished in beginning of 2022) and will ensure successful implementation of the project, such as:

- 1) Office room with 4 working stations, that will provide all necessary tools for the project Implementation team.
- 2) Classroom for testing and running Educational Programmes, Educational workshops for school children and teachers. Classroom is equipped with a projector, access to internet, a flipchart, audio system, transformable tables and chairs. The classroom can host up to 50 people. The classroom can also be separated with a transformable wall to host two separate events, each with up to 20 people.
- 3) <u>Meeting room for individual or team meetings</u> for the Implementation team. The room has enough of space to organize meetings with all team members.
- 4) Exhibition area that will be used to host newly developed exhibits before the new building is opened in early 2022. Exhibition area has all necessary resources to host Exhibits electricity, heating, cleaning, security, etc...
- 5) <u>Technical Workshop</u> is equipped with wood working, metalworking, painting, finishing assembly and other tools necessary to produce new Exhibits developed during the project.
- 6) A warehouse of more than 600 sq.m. It can be used to store Exhibits that cannot be displayed in current premises; to store tools and equipment needed for various education workshops; to assemble large exhibits.
- 7) <u>Transportation units</u> that can be used to transport Exhibits, visit cooperation partners, organize material supplies, organize study visits to other ICs in Latvia and abroad.

Additionally, project partner RTU holds a workshop in Cesis "theLAB Cēsis" and Design Factory in Riga with many other necessary tools and

expertise for producing high-end Exhibits – 3D printers, laser cutters, milling machines, and more.

2.2. Description of the implementation, administration and monitoring of the Project, including the involvement of Project partners

Administration of the project will be ensured by existing municipality employees and procedures. Using current experience in project management and administration municipality will ensure that:

- 1) Employment agreements, reports and payments will be executed according to overall human resource management principles.
- 2) Procurement procedures will follow national regulations on developing, announcing and evaluation any procurement.
- 3) Signing any long-term agreements with suppliers or cooperation partners will follow internally approved political and administrative decision-making process.
- 4) Execution of any outgoing payments will follow internally approved accounting procedures and standards.
- 5) Flow of (internal and external) information about the project progress will follow internally approved communication standards.
- 6) A separate bank account will be opened in State Treasury to ensure open and simple cash-flow management.

Project administration system includes: weekly meetings for progress reporting and planning within the teams, monthly reports, implementing internal procedures and KPIs (Key Performance Indicators).

Project implementation system is based on vertical coordination system and is made of two levels:

- 1) Implementation Team consisting of Project Head, Head of Education, Head of Exhibitions, Head of Marketing and Outreach
- 2) Implementation Groups Education Team (including NAROM), Exhibition Team (including RTU), Marketing and outreach Team (including NAROM and RTU)

The implementation system includes:

- 1) weekly Implementation Team meetings for implementation progress reports, implementation planning, making reports to Cooperation Committee at Ministry of Education and Science, setting goals to Implementation Teams, preparing reports to Steering Committee (see below).
- 2) Weekly meetings of Implementation Group for progress reports, planning next activities, setting goals to group members and external experts.

Administration Team and Implementation Team is connected through Project Head. Administration Team members will have authority to ask for specific reports or information from directly from Implementation Team members.

Municipality will sign cooperation agreements with both Partners – NAROM and RTU at the beginning of the project. The agreement will include: description of activities, description of duties and responsibilities, general time-table, communication procedures, procedures for involving external experts, funding and accounting procedures, reporting procedures, solving of conflicts. Due to the very complex implementation system of the project, the cooperation agreement will include specific responsibilities towards Partners, including:

- 1) Project partners will follow and adjust to process management, reporting system and planning procedures defined by Implementation Group and Management Team.
- 2) Planned Partner activities and resource allocations have to be approved by both Head of the Team and Project Head.
- 3) In case of disagreements on reported results and costs by project Partner head of the Teams, Project Head will take the final decision.

During the project external experts will be invited to provide additional expertise in specific activities per hour based, including:

- 1) Development of Education Programmes and Workshops (External expertise from industry experts) experts needed with a knowledge in specific scientific or space exploration areas, like astronomy, human space flight, rocket science, biology, chemistry, etc. as needed.
- 2) Development of Exhibits (External expertise from RTU students and Academia, External technical expertise) experts needed with engineering skills and experience that are not available in the Implementation Team to develop and design specific mechanical, electronic, software components for the Exhibits. Additional expertise from RTU students and Academia might be necessary to conduct research of possible materials and make calculations for integrity of mechanical structures.

All external experts will be selected in procurement process based on criteria developed by respective Implementation Team Head, approved by Project Head and Procurement Specialist. External experts and services contracted by Partners will follow internal procurement procedures of the Partner. Deliverables of external expertise or services will be approved by Head of Implementation Team, Project Head and Procurement Specialist.

Monitoring of the project will be conducted by a specially assigned Steering Committee, consisting of municipality management members, local policy makers (deputies) and Head of the Project. The purpose of the Steering Committee will be:

- 1) To follow overall progress of the project according to previously approved timetable.
- 2) Help to identify possible threats to the project implementation.
- 3) Take decision of necessary changes in project management if project results are not met.
- 4) Develop or suggest necessary changes in implementation and administration of the project.
- 5) Develop and promote necessary political decisions, like changes in municipality budget or changes in project activities.

Municipality will open a separate bank account in State Treasury for all project related payments.

To ensure a successful implementation of the project a Procurement Plan has been developed. <u>Annex 4</u> contains detailed description of planned procurements and their implementation plan.

Project publicity will be conducted according to Communication Plan (Annex 5)

2.3. Duration of Project (full months)	36 (thirty six)
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^{*} Duration of the project should be the same as stated in the project Time schedule after the signing the Project agreement

2.4. Project risk assessment

No.	Risk	Risk description	Impact of risk (high, medium, low)	Probability (high, medium, low)	Risk prevention / mitigation measures
1.	Risks associated with management and implementation staff	Possible changes to management and implementation stuff – not right people selected for management or implementation, people leaving for other jobs, insufficient qualification of management or implementation teams.	High	Low	Risk prevention measures include: careful specialist selection process; detailed discussions with every member of the team before signing employment agreements about the motivation for joining the project and future plans after the end of the project, future carrier possibilities and future of IC. Risk mitigation measures include: clear division of responsibilities and goals for each team member, organizing motivation team-building events at least twice a year; developing long-term career paths for team members; transparent evaluation of the team members; including a need for knowledge transfer process for every team member in case of leaving the team, goal based personnel planning. Responsible for the risk prevention and mitigation measures is the Project Head and Project Coordinator.
2.	Financial risks	Possible problems due to economic instability to ensure co-financing for the project activities.	High	Medium	Risk prevention measures include: Careful planning of municipality budget taking into consideration a possibility that loans will not be available; lobbying long-term political decisions to ensure stability and predictability of the funding, including after the project completion, developing future projects and other activities to raise funding and ensure co-financing for the project activities and ensuring funding after the project completion. Risk mitigation measures include: careful and regular analysis of Covid-19 Pandemics influence on Municipality tax revenues; reevaluation of municipality investment strategy and portfolio according to influence of the Pandemics and other aspects, like recession and regional reform; redirecting funds from other investment/development projects of the municipality in case there are limited borrowing capacity for the municipality due to economic recession from Covid-19. Responsible for the risk prevention and mitigation measures is the Project Head.

3.	Implementation risks	With a large team and complexity of project there might be inefficiencies, lost resources (time) due to communication and planning deficiencies.	Medium	Medium	Risk prevention measures include: rigid planning and communication system implemented prior to project beginning; creating long term and short term plans for project implementation based on project goals and outcomes, building project reporting system for all members of team, evaluating progress and outcomes weekly and adjusting implementation accordingly. Risk mitigation measures include: regular weekly planning and reporting meetings, communication with corresponding authorities in case of changes in project implementation schedule. Responsible for the risk prevention and mitigation measures is the Project Head and Project Coordinator.
4.	Legal risks	There might be some procurements that take more time to prepare and evaluate.	Low	Low	Risk prevention measures include: procurement process planning and coordination within municipality with other municipality projects, identifying standardized procurement processes prior to the project, adhering to municipal standards organizing procurement process, ensuring communication between Procurement specialist and Implementation team members in development of procurement content and needs. Risk mitigation measures include: Following standards of the municipality procurement procedures to avoid additional legal setbacks, include other Implementation team members in development of procurement content for the specific activity. Responsible for the risk prevention and mitigation measures is the Project Head and Procurement specialist.
5.	Risks associated with achievement of planned results	Some activities might not be possible to realize during the project period due to different circumstances, changes in time schedule or force majeure issues.	Medium	Low	Risk prevention measures include: rigid planning and communication system implemented prior to project beginning; creating long term and short term plans for project implementation based on project goals and outcomes, building project reporting system for all members of team, evaluating progress and outcomes weekly and adjusting implementation accordingly, project results communicated across all project team members prior to the project. Risk mitigation measures include: regular weekly planning and reporting meetings, communication with corresponding authorities in case of changes in project implementation schedule. Responsible for the risk prevention and mitigation measures is the Project Head and all of Implementation Team.

Ī		Construction of	Due to very complicated process of	High	Medium	Risk prevention measures include: synchronizing project
		new premises	construction of the new IC building			implementation plan with construction premises of the project,
			there might be some delays on			participation of project implementation team members in construction
			installing Exhibits and moving to			project meetings, in case of foreseeing delays in building process
			new premises and changes in			creation of alternative plan to complete projects objectives will take
			project schedule.			place.
						Risk mitigation measures include: participation of Project
	6.					implementation team members in construction project meetings and
						creation of alternative plan and schedule to achieve projects outcomes
						in case of delays in building process. In case of construction delays,
						all key project activities (educational workshops, outreach activities,
						exhibitions) can be implemented in the current location of the IC in
						Cesis.
						Responsible for the risk prevention and mitigation measures is the
						Steering Committee.

2.5. Planned cooperation with other Innovation Centres in Latvia

The cooperation between Innovation centres in Latvia will be based on sharing experience and good practices principles. All 4 Latvia Innovation centres (Ventspils, Liepāja, Cēsis and Daugavpils) will meet at least twice a year to ensure mutual exchange of information on planned project activities, assessing common opportunities for co-operation and coordinating activities and content planned in projects. It is planned that each meeting will take place in another Innovation centre city. Information will be provided between IC, schools, municipalities and media.

Cesis IC will invite other Innovation centre representatives to the opening event to introduce thematic galleries featuring interactive exhibits, mobile equipment, as well as Educational Programmes, Workshops, and more. It is planned that Cesis IC participants will also visit other centres opening events and other possible events. It is planned to organize additional online meetings if necessary, to exchange information on planned activities and current affairs. Organizing online meetings would mean faster information flow. Communication channels such as e-mail and telephone calls will most often be used to communicate with other Innovation centres. Innovation centres will organize Study visits - at least one study visit per year, to share and get to know new working and educational methods, to share work experience and planning development.

After the end of the project, co-operation with other Innovation centres will be continued to provide an information exchange about seminars, scientific and thematic events, competitions for teachers, pupils and families etc.

2.6. Description on how the Project applicant will ensure free access to the Innovation Centre's educational and interactive activities, demonstrations and exhibitions and other educational activities to pupils, students, teachers and associated NGO's from all regions of Latvia and project Norwegian partner (-s), including description how is planned to cover costs of transportation for participants from schools and respective NGOs from Latvia.

To ensure a free access of children, teachers and students to IC's educational workshops, demonstration and exhibitions and other activities a rigid application process will be implemented:

- 1) At least two months before the activity there will be Initial Announcement on the official webpage of the IC about the application date and time for the intended educational activity. Additional information about the Initial announcement will be sent to regional Education Boards.
- 2) The Initial Announcement will indicate:
 - a. the target audience of the event (teachers, a class, individual students or teams);
 - b. number of free places available for the event;
 - c. limitation on how many participants can apply from one region;
 - d. limitation to travel costs that will be covered per every participant;
 - e. duration of the application period.
 - f. Evaluation period
- 3) Before the Application Day a detailed application form will be developed with all necessary disclaimers
- 4) On the Application Day, the application form will be launched at exactly the time indicated on the Initial Announcement.
- 5) After the end of the application period a Head of Marketing and Outreach will form evaluation committee to decide determine those applicants who a qualify the criteria and were first to apply.
- 6) By the end of the Evaluation period Head of Marketing and Outreach will inform participants and their corresponding Education Boards about their participation.
- 7) After the event actual number of participants will be recorded and corresponding regional boards will be allowed to invoice the traveling costs.

Free access to ICs educational programmes and workshops will be also ensured to both Partners to send students and teachers for education programs developed during the project. Sending students and teachers to educational workshops has to be approved at least 3 months in advance and approved by Head of Implementation Teams and Project Head.

3. PUBLICITY

	Information and publicity activities ²¹						
Activity	Description of activity	Implementation period	Number				
Information on the Internet, incl. on the project website	A project webpage will be developed to promote project related activities and publish news, upcoming public events and announce application to educational workshops. News and activities will be published both in Latvian and English.	Month 6 till Month 36	At least 10 publicity announcements				
	A special section on municipality webpage about the project will be developed Information about the project and its activities will be published on the municipality webpage.						
	Social media accounts (Facebook, Instagram, Twitter) will also be created to promote a wider coverage of publicity.						
	There will be at least one publicity every three months. In total it is estimated to create at least 10 publicity announcements. Every publicity announcement will include reference to the project, project promoter and the funding source.						
	Information on the web and social media will include information about the project, its progress, achievements and results, the cooperation with entities in Iceland, Liechtenstein and/or Norway, relevant photos, contact information and a clear reference to the Programme and the EEA and Norway Grants.						
Information activities for the target groups	During the project period there will be several information activities for the target groups (teachers, representatives of educational boards, parents) to inform about the project activities, educational programmes and workshops, outreach activities.	Month 12 till Month 36	At least 3 information activities				
	During the information activities participants will be asked to contribute their ideas for the activities. Also, participants will be asked to give their feedback on previous activities to evaluate efficiency of publicity activities.						

 $^{21}\ Detailed\ description\ of\ information\ and\ publicity\ activities\ available\ in\ Annex\ 5-Project\ Communication\ Plan$

	There will be at least three information activities for target groups during the project. Every publicity announcement will include reference to the project, project promoter and the funding source.		
Organizing communication events	During the project it is planned to organize at least 3 press briefings. First press briefing will be organized in the beginning of the project implementation to inform press about planned activities and opportunities. Second press briefing will be organized for the official opening of IC in Cesis to showcase the building and the Exhibits. Third press briefing will be organized at the end of the project to inform the public about all the results achieved during the project. Every press briefing will include reference to the project, project promoter and the funding source.	Month 4 till Month 36	At least 3 communication events organized
Developing promotional videos	During the project period there will be various outreach and publicity events organized. For several events there will be special promotional videos produced, including such events as: 1) Participation of Latvian students in European Space Camp 2) Organizing of first Latvian Rocket Camp 3) Organizing of Space Festivals 4) Organizing of Can Sat Competition 5) Exhibition of the IC and educational programs. Every press briefing will include reference to the project, project promoter and the funding source.	Month 6 till Month 36	At least 5 promotional videos developed and published
Communication Strategy and Plan	Municipality will implement a Communication Strategy and Plan (Annex 5) Project Poster will be installed in Implementation premises. Permanent project sign (plate) will be installed on the premises after completion of the project.	Month 1 till Month 36	Communication strategy and Plan implemented

4. SUSTAINABILITY OF THE PROJECT RESULTS

4.1. Describe how Project sustainability will be ensured (< 2000 characters >)

Social sustainability

Social sustainability addresses the need to regularly keep in contact with most important stakeholders who ensure that the science centre is delivering its social goals. To be sustainable on social goals there have to be partners who share the same social goals and can both gain from the science centre and contribute to its growth. The most important social partners that have been identified are:

- 1) Local and regional <u>municipalities</u> who are interested to see the science centre as an innovation hub that can attract young people to the region. Targeted funding from municipalities could be used to develop new innovation and training programs to attract young people to the region.
- 2) Local and regional <u>Education Boards</u> who are interested to develop innovative education approaches and improve the quality of education. Common projects can be developed to train teachers, improve teaching tools in schools, improve environment for creativity in schools.
- 3) Local and regional <u>Tourism Boards</u> who are interested to attract tourists from other regions, countries and improve economic activity in the region. Common projects and funding could be used to promote the science centre in other regions as a tourism destination.

Besides to local and regional partners there has to be an open dialogue with national institutions, like Ministry of Education and Science, Ministry of Economics, Ministry of Regional Development. Also, a regular contact with leading political parties have to be established to lobby concepts of science capital²² in national strategic documents.

Environmental sustainability.

Environmental sustainability is important primarily for the local population, but it can also be used as a positive case study on global level. The environmental sustainability of the science centre will be ensured through these critical aspects:

- 1) <u>Location</u> of the science centre is outside of city limits and will not create additional environmental, traffic, logistical or other stresses to the city.
- 2) <u>Building</u> of the science centre will be equipped with state-of-the art green technologies to reduce the human footprint on the planet.
- 3) <u>Surroundings</u> of the science centre provides a lot of possibilities for recreation through walking, cycling and other outdoor activities, that reduces consumption of technology-based equipment, improves health, while reducing the need for services that generate high pollution or CO2 emissions.

Intellectual sustainability.

Intellectual sustainability is very important aspect to ensure future of science centre and reach higher impact beyond results of the project. Reaching wider audiences and providing Educational Programmes and Workshops developed during project after end of the project is foreseen. Cesis municipality will continue to improve and deliver Educational Programmes and Workshops and Teacher training courses developed during project and create new ones to complement educational proposal of IC. All Methodological manuals and other intellectual projects results will be available for teachers and interested parties for at least 5 years after approval of the Final project report and completion of the project.

Economic sustainability.

Economic Sustainability of the science centre is ensured by thorough financial calculations. <u>Annex 1.3</u> contains detailed calculations (in Latvian) for the next 5 (five) years starting with the first year of operations after the end of the Project. Calculations are based on current and predicted costs or resources. All equipment and tools produced and purchased during the project will stay under Cesis municipality

 $^{^{22} \, \}underline{\text{https://www.ucl.ac.uk/ioe/departments-and-centres/departments/education-practice-and-society/science-capital-research}$

ownership. It is planned to establish municipality agency which will sell entrance tickets to cover expenses related to running the IC. Municipality is ready to take full responsibility for ensuring operation of the centre for the next 5 years after approval of the Final project report and completion of the project. Municipality will take a full responsibility for the investments of the project for the duration of at least 5 years after approval of the Final project report and completion of the project, including:

- 1) keeping ownership of Exhibits and tools developed and purchased during the project;
- 2) providing insurance for the Exhibits and tools developed and purchased during the project;
- 3) ensuring needed resources for maintenance and operation of Exhibits and tools developed and purchased during the project.

5. Time schedule

Project activity ²³					Proje	ct im	oleme	ntatio	on sch	nedule	e (qua	rters))			
		20	20			20	21			20	22			20	23	
	1.	2.	3.	4.	1.	2.	3.	4.	1.	2.	3.	4.	1.	2.	3.	4.
1. Developing, testing and implementing Educational Programmes			X	X	X	X	X	X	X	X	X	X	X	X	X	
1.1. Developing and implementing Educational Workshops for school children			X	X	X	X	X	X	X	X	X	X	X	X	X	
1.2. Developing and implementing Teacher training programmes							X	X	X	X	X	X				
1.3. Developing and implementing Educational Camps					X	X	X	X	X	X	X	X				
1.4. Developing and implementing Educational Student Competitions					X	X	X	X	X	X	X	X	X	X		
1.5. Developing and implementing Adventure Packs							X	X	X	X	X	X	X			
2. Developing and implementing interactive exhibitions			X	X	X	X	X	X	X	X	X	X	X	X	X	
3. Outreach activities			X	X	X	X	X	X	X	X	X	X	X	X	X	
3.1. Promoting and participating in Space Camps					X	X	X	X	X	X	X	X	X	X	X	
3.2. Promoting and participating in European space related educational student						X	X	X	X	X	X	X	X	X		
competitions																
3.3. Organizing Space Festival in Latvia							X	X	X	X	X	X	X	X		
3.4. Creating traveling set and participating in other public events					X	X	X	X	X	X	X	X	X	X		

²³ Project activity number must correspond to the Project activity number specified in the project section "1.5. Project activities and results to be achieved"

6. Financing Plan

Original XLS file of the table available in Annex 6.1.

Source of financing	2020	20 2021		2023	Total			
	Total	Total	Total	Total	Total	%		
Total Project grant	386434.40	579651.60	579651.60	386434.40	1932172.00	90%		
Norway Grant	328469.24	492703.86	492703.86	328469.24	1642346.20	85%		
State co-financing	57965.16	86947.74	86947.74	57965.16	289825.80	15%		
PP co-financing	42936.80	64405.20	64405.20	42936.80	214684.00	10%		
Total eligible costs	429371.20	644056.80	644056.80	429371.20	2146856.00	100%		

7. Summary of the Project Budget

Project Promoter fills only those cells marked in "yellow", all other fields will be filled automatically. Original XLS file of the table available in <u>Annex 6.2.</u> Full and detailed project budget available in <u>Annex 6.3.</u>

	Cost Heading	_	Unit of	No. of		Costs	Total		
No.		Qty	measurement	Activity	Project Grant PP co- financing		EUR	%	incl. VAT
1.	Costs of the Project management staff and Project Implementation staff				825,120.00	91,680.00	916,800.00	43%	0.00
1.1.	Costs of the Project management staff and other administrative costs				32,400.00	3,600.00	36,000.00	2%	0.00
1.1.1.	Remuneration of the Project management staff (employment contract)	4	no.of emploees	1.,2.,3.	32,400.00	3,600.00	36,000.00	2%	
1.1.2.	Remuneration of the Project management staff (contract for work performance/service contract)				0.00	0.00	0.00	0%	0.00
1.2.	Costs of the Project implementation staff				792,720.00	88,080.00	880,800.00	41%	0.00
1.2.1.	Remuneration of the Project implementation staff (employment contract)	16	no.of emploees	1.,2.,3.	792,720.00	88,080.00	880,800.00	41%	
1.2.2.	Remuneration of the Project implementation staff (contract for work performance/service contract)				0.00	0.00	0.00	0%	0.00
2.	Travel and subsistence allowances	39	no.of visits	1.	52,380.00	5,820.00	58,200.00	3%	0.00
3.	Costs of external expertise and services				298,350.00	33,150.00	331,500.00	15%	57533.06
3.1.	External Expertise and services for implementation (workshops and exhibitions)	15	no.of suppliers (up to)	1.,2.	225,450.00	25,050.00	250,500.00	12%	43475.21
3.2.	External Expertise and services for marketing and outreach	5	no.of suppliers (up to)	3.	72,900.00	8,100.00	81,000.00	4%	14057.85

4.	Costs of organisation of events, incl. costs of materials				98,100.00	10,900.00	109,000.00	5%	18917.36
4.1.	Travel subsidy for school visits, including material	4	no.of suppliers (up to)	2.	45,000.00	5,000.00	50,000.00	2%	8677.69
4.2.	Cost of organizing outreach activities, including material	10	no.of suppliers (up to)	3.	53,100.00	5,900.00	59,000.00	3%	10239.67
5.	Costs of mobile equipment linked to activities in Innovation centres (≤ 60% of total costs)				535,050.00	59,450.00	594,500.00	28%	103177.69
5.1.	Mobile equipment				495,000.00	55,000.00	550,000.00	26%	95454.55
5.1.1.	Prefabricated Mobile equipment	8	no.of suppliers (up to)	2.	324,000.00	36,000.00	360,000.00	17%	62479.34
5.1.2.	Components and materials for creating Mobile equipment	8	no.of suppliers (up to)	2.	171,000.00	19,000.00	190,000.00	9%	32975.21
5.2.	Equipment for makerlab, hardware and software, printers and maintenance costs for makerspace and markerlab and linked with educational programmes and workshops	5	no.of suppliers (up to)	2.,3.	40,050.00	4,450.00	44,500.00	2%	7723.14
6.	Depreciation costs of mobile equipment linked to activities in Innovation centres				0.00	0.00	0.00	0%	
7.	Indirect costs (≤ 15% of total costs of the Project management staff and Project Implementation staff)				123,172.00	13,684.00	136,856.00	15%	
	Total DIRECT costs				1,809,000.00	201,000.00	2,010,000.00		
	Total INDIRECT costs				123,172.00	13,684.00	136,856.00		
	TOTAL				1,932,172.00	214,684.00	2,146,856.00		179628.10