Nature Research Centre
Institution code 302470603

Draft Strategic Activity Plan for 2018-2020

MISSION AND STRATEGIC CHANGES

MISSION

The mission of the Nature Research Centre is to pursue long-term international-level fundamental and experimental development research into components of biotic and abiotic nature and to generate new scientific knowledge for the assurance of prosperity and sustainable development of the national community, culture and economy as well as development of the country‘s competence in the world community through running high-level international joint degree programmes, popularization and dissemination of scientific research results in compliance with the Articles of Association of the Nature Research Centre (Official Gazette, 2009, No. 158-7184).

ACTIVITY PRIORITIES

Priorities of the Nature Research Centre‘s (hereinafter referred to as „Centre“) activities are: (i) international-level fundamental scientific research and interstate project activities designed to meet national and international information needs in the fields of botany, ecology, biology, geology and geography; (ii)Scientific research and experimental development (SR&ED), i.e. applied scientific research and services. The prioritized activities of the Nature Research Centre fall within the scope of the following four programmes of long-term scientific research and experimental development (social, cultural) **(**approved by the Order No. V-273, of 24 April 2017, of the Minister of Education and Science of the Republic of Lithuania):

1) Biota resources in conditions of the changing environment: research into the state of populations, species and communities, justification of management and sustainable use;
2) Molecular bases of wildlife biodiversity and ecology;

Research into functions, responses and adaptations of biological systems and prospects of research results application;the geoenvironment and its resources in conditions of climate change and anthropogenic impact.
Research and SR&ED activities of the Centre are financed from two sources: 1)State budget 2) Revenues generated from contracted research within the framework of applied SR&ED activities.

Appropriations for the implementation of research activity priorities

Priority activity	Appropriations, thou.EUR
International-level fundamental scientific research and interstate project activities	4300
Applied (SR&ED) activities	869

DIRECTIONS FOR THE ACTIVITY EFFICIENCY ENHANCEMENT

In pursuit of enhancing efficiency of the performed fundamental research and SR&ED activities, the Centre plans to:

- increase the number of scientific articles published in international publications, especially in high-impact journals;
- increase the contribution (articles prepared in co-authorship) of Centre researchers to publications in internationally top-ranking journals;
- decrease budget appropriations per scientific article preparation;
- seek an increase in the proportion of large budget projects in the total number of the projects pursued;

promote Centre involvement in the implementation of third-level university studies; promote cooperation with national and foreign institutions of agriculture and industry.

STRATEGIC OBJECTIVE OF THE NATURE RESEARCH CENTRE

To pursue international-level scientific research and SR&ED activities and to train highly qualified researchers in natural sciences.

DESCRIPTION OF THE STRATEGIC OBJECTIVE

In pursuance of its strategic objective, the Nature Research Centre conducts scientific research which falls into the following three main trends approved by the Resolution No. 1800 of December 23, 2009 of the Government of the Republic of Lithuania (Official Gazette, 2009, No.158-7186):

1. Research into the state of environmental quality, patterns and mechanisms of the structure, functioning, sensitivity, vulnerability, genetic diversity, adaptations and microevolution of natural ecosystems, habitats, species and communities under global change and anthropogenic impact, and the development of theoretical fundamentals and projections.
2. Research and projections of the state and changes in Lithuania‘s natural and biological resources, scientific justification of conservation, restoration and sustainable use.
3. Research into the structure, properties and formation of the Earth's entrails and surface, the evolution of palaeogeographical and palaeoecological conditions, groundwater and surface water systems, the state and change in landscapes and the geoenvironment and their interaction with human activity; scientific justification of sustainable use of Lithuania’s local resources (the Earth‘s entrails and surface).

The growing demand for ecological, geological geographical and botanical research in our country as well as the implementation of EU commitments heightens the need for new specialists and qualified researchers to conduct high-quality research and develop scientific potential of the

country. To meet this demand, the Nature Research Centre together with other higher educational institutions of Lithuania is actively engaged in the training of researchers and highly qualified specialists.

To conduct high-level world-competitive research, develop international relations and procure state-of-the-art research equipment, the Centre needs additional funding. The Centre deals with this problem by carrying out applied research and SR&ED projects.

Effect criteria:

1. Percentage of the scientific articles published in international journals of the total number of published articles (%).
2. Budget appropriations per scientific article preparation (thou. EUR).

The strategic objective of the Nature Research Centre is being implemented within the programme: „Development of national science and scientific research experimental development in the field of nature research".

APPROPRIATIONS FOR THE IMPLEMENTATION OF STRATEGIC OBJECTIVES AND PROGRAMMES

Appropriations for the programme in 2017 amounted to 4285 thou. EUR (excluding appropriations for the state investment programme).

HUMAN RESOURCES

There are 309 employees on the staff list of the Centre, 42 of which are research degree holders.The number of full-time doctoral students at the Centre is 53, 43 of which are doing a degree in biomedical sciences and 10 in physical sciences.The changes that have been taking place in the number of positions at the Centre since 2016 are forced by the need to balance budgetary appropriations with the number of positions and are being made taking efficiency of employees' research activity into consideration.

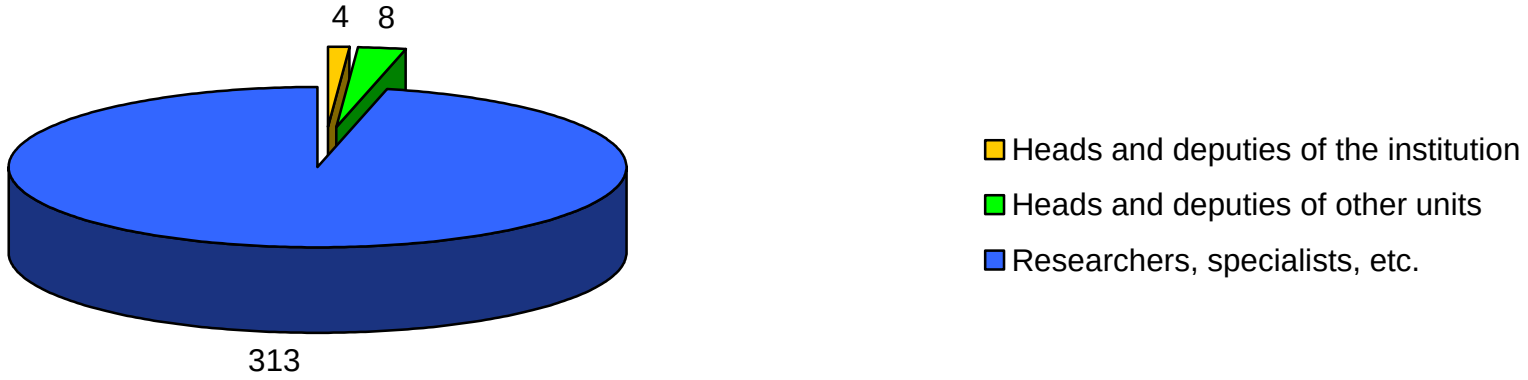
At present, the research staff of Centre consists of 23 Chief researchers, 50 Senior researchers and 55 Researchers. At the Centre, which in accordance with the valid Articles of Association consists of three institutes, i.e. the Institute of Botany, the Institute of Ecology and that of Geology and Geography, there are 24 operating research laboratories. As submitted by the director of the Centre and approved by its Scientific Council, they are as follows: Laboratory of Genetics, Laboratory of Mycology, Laboratory of Phytopathogenic Microorganisms, Laboratory of Plant Physiology, Laboratory of Plant Viruses, Laboratory of Flora and Geobotany, Laboratory of Economic Botany, Laboratory of Biodeterioration Research,

Laboratory of Aquatic Ecotoxicology, Laboratory of Algology and Microbial Ecology, Laboratory of Avian Ecology, Laboratory of Ecology and Physiology of Hydrobionts, Laboratory of Mammalian Ecology, Laboratory of Molecular Ecology, Laboratory of Chemical and Behavioural Ecology, Laboratory of Entomology, Laboratory of Genotoxicology, Laboratory of Marine Ecology, P.B. Šivickis Laboratory of Parasitology, Laboratory of Bedrock Geology, Laboratory of Geoenvironmental Research, Laboratory of Quartenary Research, Laboratory of Climate and Water Research, and Laboratory of Nuclear Geophysics and Radioecology.

Training of doctoral students and highly-qualified researchers occupies a significant part in activities of the Centre. In cooperation with educational institutions of Lithuania and those of foreign countries, the Centre runs the following five doctoral study programmes: Ecology and Environmental Science (in collaboration with Vilnius University), Biology (in collaboration with Vytautas Magnus University, the State Research Institute Centre for Innovative Medicine, the University of Agder (Norway) and the University of Latvia), Geology (in collaboration with Vilnius University), Physical Geography (in collaboration with Vilnius University and Klaipėda University) and Zoology (in collaboration with Vilnius University). The number of full-time students currently pursuing PhD studies at the Centre is 53, 43 of which are doing a degree in the area of biomedical sciences (35 in ecology and environmental science, 8 in biology) and 10 in physical sciences(8 in geology, 2 in physical geography).

	2018	2019	2020
Number of positions, units	325	325	325
Expenditure on wages & salaries, thou. EUR	2591	2591	2591

Expenditure on wages & salaries by groups of positions



MANAGEMENT COSTS

Table 1 presents more detailed information about projected appropriations for programmes by categories of expenditure.

Table 1. Appropriations for programmes and management costs for 2018-2020

(thou.EUR)

No..	Programme name	Projected appropriations for 2018				Projected appropriations for 2019				Projected appropriations for 2020			
		In total	For expenditure		For acquisition of assets	In total	For expenditure		For acquisition of assets	In total	For expenditure		For acquisition of assets
			In total	For salaries			In total	For salaries			In total	For salaries	
1.	Development of national science and SR&ED in the fields of nature research	4396	4346	2591	50	4396	4346	2591	50	4396	4346	2591	50
	Management costs	609	609	207		609	609	207		609	609	207	
The total sum of appropriations for programmes		4396	4346	2591	50	4396	4346	2591		4396	4346	2591	50
Management costs		609	609	207		609	609	207		609	609	207	
Percentage of management costs (%)		14	14	8		14	14	8		14	14	8	

* The row „Management costs“ covers both appropriations for a particular programme and its management

IMPLEMENTATION OF STRATEGIC OBJECTIVES AND PROGRAMMES

CONTEXT OF ACTIVITIES

The Nature Research Centre (hereinafter referred to as „Centre“) is a state scientific research institute. It is a public legal entity, operating as a state budget institution and conducting long-term fundamental research according to the trends established in its Articles of Association and experimental (social, cultural) development, results of which are important for the state, society, international cooperation and economic entities. The Centre conducts its activities complying with the Law on Higher Education and Research of the Republic of Lithuania, the Resolution of the Government of the Republic of Lithuania No.1800 of 23 December 2009 „On the reorgnization of the Institute of Ecology of Vilnius University, the Institute of Geology and Geography and the Institute of Botany“ (Official Gazette, No. 158-7186, 2009) and the „Schedule of Terms and Conditions of the Reorganization of the Institute of Ecology of Vilnius University, the Institute of Geology and Geography and the Institute of Botany“ approved thereby,“Articles of Association of the State Scientific Research Institute Nature Research Centre“.

As a source of energy and recreational resources and the precondition for economic and industrial countries‘ development, natural resources and ecosystem services are of immense economic and social importance in ensuring the welfare and prosperity of the country and its people. The need for natural resources is steadily growing, and their depletion due to the currently prevalent business models, our country‘s infrastructure and social habits is too fast. Intensive and irresponsible exploitation of natural resources induces structural changes in ecosystems and biodiversity decline and they have a negative feedback effect on the environment, human health and economy of the country. Efficient and sustainable use of resources and ecosystem services through the application of eco-innovations, ecosystem-friendly and ecosystem restoring measures as well as solutions for alternative use of resources is still receiving insufficient attention. Therefore EU and Lithuania aim for integrating economic growth of the country and life quality improvement with the sustainable use of ecosystems and their resources. Scientific and applied research conducted in this area and forming the basis for eco-innovations is recognized as one of the key factors in ensuring preservation of our country‘s ecosystems and sustainable society development.

The Centre‘s activities are focused on scientific research and experimental development in the fields of biomedical and physical sciences.

Activities of the Centre cover a) long-term scientific research, which is significant to the country‘s economy, culture, health care, society continuity and development, in the fields of ecology, botany, mycology, microbiology,virology, zoology, parasitology, and geosciences and experimental development; b) cooperation with representatives of business, authorities and society, contracted scientific research and experimental

development projects, methodological and other support provision; c) participation in national and international scientific research programmes, assurance of Lithuania‘s competence on the international stage; d)maintenance and development of scientific contacts with national and foreign scientific research centres and researchers working therein; e) expert assessment of the fundamental and applied science programmes and projects that fall within the framework of the Centre‘s research area, provision of consultations within the competence of the Centre, patent activity; f) communication of scientific knowledge to the society, knowledge deployment in culture, education, health care and its application in social and economic activities, contribution to the development of innovations- and knowledge-based economy and education of knowledge society.

Structure and Management of the Centre

The Nature Research Centre consists of three research institutes- the Institute of Botany, the Institute of Ecology and that of Geology and geography, and 24 scientific research laboratories. Several ancillary structural units indispensable for Centre‘s research activity are operating in different parts of our country, i.e. the biological station at the seaside, experimental and field research stations in Vilnius region, Ventė, Rusnė and Ignalina region. All support (administrative, maintenance, legal, managerial and etc.) needed for conducting scientific research is provided by respective Assistance departments.The Administration and the Scientific Council organize and control activities of the Centre, taking strategic decisions regarding the Centre and its structural units.

Established in response to the development of priority scientific research trends, SR&ED activities and innovations in Lithuania, the Open Access Centre, a functional subdivision of the Nature Research Centre, provides internal and external users with scientific research and experimental development services. Activities of the Centre aim not only at ensuring the competence of the country in assessing and protecting resources of biotic and abiotic nature, but also at helping business to efficiently and sustainably exploit natural resources for generating added value and gaining economic benefits. The SR&ED activities undertaken by the Centre help business to develop new kinds of natural resources. By granting public access to its infrastructure and SR&ED findings, the Nature Research Centre contributes to the process of informing and educating society. In fact, activities pursued by the Centre are in line with the EU economic development strategy „Europe 2020“ and are oriented towards fulfilling its objectives as well as those of the EU strategy on „Efficient exploitation of resources“, which encourage the increased use of eco-innovations for the purpose of balancing economic growth against environmental sustainability.

Research activities

- The fundamental research and experimental development activities undertaken at the Centre are oriented towards strategic approaches and objectives of the European- and world-scale research aiming to ensure the well-being of society in the present-day dynamic world undergoing significant changes in nature and society. Although there have occurred numerous innovations, biotic and abiotic nature is still the main source of resources for the mankind and the key determining factor in the living environment quality. It is obvious that the demand for natural resources is steadily growing, and the currently prevalent business models, our country‘s infrastructure and social habits are accelerating resource consumption. Intensive and irresponsible exploitation of natural resources induces structural changes in ecosystems and biodiversity depletion, which have a negative feedback effect on the environment, human health and economy of the country. It is globally recognized that efficient and sustainable use of resources and ecosystem services through the application of eco-innovations, ecosystem-friendly and ecosystem restoring measures as well as solutions for alternative use of resources is still receiving insufficient attention. Therefore EU and Lithuania aim for integrating economic growth of the country and life quality improvement with the sustainable use of ecosystems and their resources

Scientific and applied research conducted in this area is recognized to be one of the key factors in preserving our country‘s ecosystems and ensuring sustainable society development.

To summarize, high-level international research is the key objective of Centre activities. The following tasks have been set to achieve it:

- to enhance competitiveness of Centre researchers in the international research arena by **improving research quality through the** concentration of intellectual, financial and technical resources;
- **to internationalize scientific research** by promoting participation of Centre researchers in international research networks, projects and working groups;
- to **raise the intellectual level** of the Centre research potential by encouraging qualification upgrading and recruiting qualified researchers;
- to ensure that research activities undertaken by the Centre and the obtained research results **get publicized** in **high-ranking international journals** and at **international science forums;**
- to ensure **rational use and regular upgrading of the Centre‘s technical potential;**

- to emphasize **the feasibility of scientific ideas** by producing final prototypes and samples of the products, processes, means, etc. wanted by industry and economy.

Training of researchers

To ensure economic and social welfare of the country and its research competitiveness both on the EU and global scales, it is necessary to train highly qualified specialists and researchers able to compete on the global scale and to sucessfully fulfil industry expectations. The Centre is actively engaged in running five programmes of doctoral studies and is planning in the future to:

- **actively participate in the implementation of third-level studies** and recruitment of the most promising undergraduate students for doctoral studies;
- **internationalize doctoral studies** by attracting doctoral students and doctoral studies‘ supervisors from abroad; support mobility of doctoral students by encouraging their participatioin in international study programmes and schemes;
- create conditions and encourage candidates to **participate in the process of post-doctoral studies** by emphasizing studies opportunities at foreign research centres;
- to **create conditions** for the most promising young researchers **to pursue research careers** at the Centre.

Social dialogue

Research activities of the Centre are focused on the following fundamental research areas that have a wide spectrum of applications: structure of the present-day biodiversity components, structure and functions of biodiversity in conditions of global climate change and anthropogenic impact; qualitative and quantitave dynamics of the Earth‘s entrails and surface; development of strategies on sustainable use of natural resources and nature protection in line with EU and global trends. The results obtained by our researchers are of extreme importance as they show to international research and management institutions Lithuania‘s competence in implementing regional and global environmental protection programmes. To meet Lithuanian society‘s demand for scientific research information and to ensure that acute information reaches as wide society circles as possible, the following measures are to be implemented:

- to **satisfy the** geographically predetermined **need of the country or a region for high-level scientific research;**
- **to promote communication of scientific research information** to the local, regional, national and international community;

- **to actively engage in a social dialogue** with representatives of the public sector and economic entities by introducing them to the research potential of the Centre and prospects of its application;
- **to cooperate with educational institutions** in raising public awareness of various nature protection- and nature utilization-related issues.
- **to engage in a social and scientific dialogue** with educational institutions of various levels;
- **to raise the prestige** and popularity **of a research career** among society members.

ACTIVITY ANALYSIS

Strengths	**Weaknesses**
High-level intellectual potential; Well developed experimental research infrastructure; Internationally recognized top-class achievements in certain fields of scientific research; Broad network of international scientific relations.	Predominantly middle-aged research staff; Limited possibilities for upgrading technical-experimental base; Limited communication of the Centre‘s research activity to the national and internation public.
Opportunities	Threats
A wide range of high-level fundamental and applied research; Unique research competence on a national level, and in some research trends on regional and international levels; Opportunities for pursuing third-level studies and doing doctoral internships abroad; Increasing interest of society in biomedical and physical sciences and the global changes-induced need for related information.	Reserved attitudes of society towards scientific research necessity and research career prospects; Limited financial possibilities of the country‘s private and public sectors to support fundamental science; Restrictive legislation (e.g. the Law on public procurement); Limited possibilities for research potential upgrading; Impediment to the development of international research competitiveness due to the existing research potential (both intellectual and technical) upgrading problems.

STRATEGIC OBJECTIVE (01)

To pursue international-level scientific research and SR&ED activities and train highly qualified specialists in natural sciences.

Percentage of scientific articles published in international journals of the total number of published articles (%).

Budget appropriations per scientific article preparation (thou. EUR).

Code of assessment criterion	Name of assessment criterion	2018	2019	2020
E-01-01	1. Percentage of scientific articles published in international journals of the total number of published articles (%).	61,0	63,0	69,0
E-01-02	2.Budget appropriations per scientific article preparation (thou. EUR);	28,4	28,4	26,7

PROGRAMME IMPLEMENTATION RESULTS

The importance of the research programme pursued by the Nature Research Centre lies in the assurance of our country‘s competence on an international level, high living standard of its people, economic growth, competitive production and sustainable development. The above-mentioned goals are achieved in pursuit of recognition for Lithuania in the fields of ecological, geological, geographical and botanical research through the collaboration with the international scientific community and research modernization by integrating new technologies and methodologies, through training of young front-line professionals and their active engagement in the process of research programme implementation. The fact that outcomes of the scientific research conducted by the Centre are communicated to the international scientific community evidences high-level competence of our researchers, their competitivenes on the global research market, succesful commercialization and utilization of the obtained results for the society welfare enhancement. One of the main factors driving the development of national science, which is emphasized in the programme pursued, is the training of young highly-qualified scientists employing the most advanced technological solutions in their research activities and developing new research methodologies, forming new research trends and elaborating the already existing ones, actively and efficiently working in the international scientific research arena. The scientific research activity conducted at the Centre meets the above-listed criteria thereby evidencing its high level and potency to reach the set strategic objectives.

Outcomes of the research activity progamme „Development of national science and scientific research experimental development in the field of nature research“ pursued at the Nature Research Centre are inextricably related with the increasing number of our researchers‘ scientific publications in international high-ranking journals, the growth of budgetary appropriations for their publishing, and the growing number of doctoral students pursuing different doctoral degree programmes. In recent years, our researchers‘ representation rate in top-ranking inernational journals was growing, and some articles prepared in-coauthorship were published in such prestigious journals as *Science*.1- Chapron, G., Kaczensky, P., Linnell, J.D.C., von Arx, M., Huber, D., Andren, H., Lopez-Bao, J.V., Adamec, M., Alvares, F., Anders, O., **Balčiauskas, L.**, Balys, V., Bedo, P., Bego, F., Blanco, J.C., Breitenmoser, U., Broseth, H., Bufka, L., Bunikytė, R., Ciucci, P., Dutsov, A., Engleder, T., Fuxjager, C., Groff, C., Holmala, K., Hoxha, B., Iliopoulos, Y., Ionescu, O., Jeremic, J., Jerina, K., Kluth, G., Knauer, F., Kojola, I., Kos, I., Krofel, M., Kubala, J., Kunovac, S., Kusak, J., Kutal, M., Liberg, O., Majic, A., Mannil, P., Manz, R., Marboutin, E., Marucco, F., Melovski, D., Mersini, K., Mertzanis, Y., Myslajek, R.W., Nowak, S., Odden, J., Ozolins, J., Palomero, G., Paunovic, M., Persson, J., Potocnik, H., Quenette, P.Y., Rauer, G., Reinhardt, I., Rigg, R., Ryser, A., Salvatori, V., Skrbinsek, T., Stojanov, A., Swenson, J.E., Szemethy, L., Trajce, A., Tsingarska-Sedefcheva, E., Vana, M., Veeroja, R., Wabakken, P., Wofl, M., Wolfl, S., Zimmermann, F., Zlatanova, D., Boitani, L. (2014) Recovery of large carnivores in Europe's modern human-dominated landscapes. Science.

346 (6216): 1517-1519.

2- Emami, S.N., Lindberg, B.G., Hua, S., Hill, S.R., **Mozūraitis, R.**, Lehm, P., Birgersson, G., Borg-Karlson, A.K., Ignell, R., Faye, I. (2017) A key malaria metabolite modulates vector blood seeking, feeding, and susceptibility to infection. Science. 355 (6329): 1076-1080).

The graph below shows the ratio between the planned indicator and the actual one.

As third-level studies, i.e. doctoral studies, are a priority area of the Centre‘s activities, a lot of attention is being directed to the recruitment of eligible candidates, the assurance of doctoral studies‘ quality and career opportunities for doctoral degree holders. The total number of doctoral students at the Centre is steadily growing, they are actively engaged in international study programmes, international research projects, student exchange programmes, and their qualification upgrading at foreign research centres.

THE PROGRAMME IMPLEMENTING THE STRATEGIC GOAL

DEVELOPMENT OF NATIONAL SCIENCE AND SCIENTIFIC RESEARCH AND EXPERIMENTAL DEVELOPMENT IN NATURE RESEARCH AREAS (01.01)

General information about the programme
The programme is prepared in accordance with the Centre's activity trends approved by the Republic of Lithuania Government Resolution No 1800 of 23.12.2009 (Official Gazette, 2009, No 158-7186). The importance of the development of Lithuania's scientific research and development, including the programme at issue, lies in ensuring the national international competence, high living standards, progress in economic development, competitive production, and sustainable development. The purposes listed above have to be realised seeking Lithuania's recognition in ecology, geology and geography and botany on the basis of cooperation with the international scientific community, updating of research investigations through integration of novel technologies and methods, and development of young high-skilled specialists and their active participation in research programmes. One of the main factors in the programme that ensures further scientific development of the country is the development of skilled young researchers working with modern technological solutions and creating novel research methods, developing the existing research trends and forming up-to-date trends, and actively and efficiently working at an international level. Government priority: To promote the progress of the national scientific research and technologies, to develop the information and knowledge society, to increase the financing of education, culture, research, and health care. Name of the programme objective: To pursue fundamental research and experimental development in natural sciences, to develop highlyskilled specialists. Task: 01 – To pursue experimental development of scientific investigation of nature and to ensure progress of doctoral studies. Measure: 01 – To investigate the state of natural ecosystems, Earth's entrails and surface and biological resources and to ensure experimental

development of scientific research

02 – To develop high-skilled researchers in biomedicine and physical sciences

The programme is intended for 5 years.

Programme executives: Nature Research Centre.

Number of staff positions for the programme implementation for 2018: 325.

Programme coordinator: Dr Habil. VincasBūda, Director of Nature Research Centre, e-mailvincas.buda@gamtostyrimai.lt

Table 2. Programme "Development of national science and scientific research and experimental development in nature research areas", 2018–2020 objectives, tasks, measures and state budget appropriations (thou. EUR)

Code of purpose, task, measure	Name of goal, task, measure	Projected appropriations for 2018				Projected appropriations for 2019				Projected appropriations for 2020			
		Total	From them:			Total	From them:			Total	From them:		
			Expenses		Asset acquisition		Expenses		Asset acquisition		Expenses		Asset acquisition
			Total	Salaries			Total	Salaries			Total	Salaries	
01.01.01.	Objective:												
	To pursue fundamental research and experimental development in natural sciences, to develop highly skilled specialists	4396	4346	2591	50	4396	4346	2591	50	4396	4346	2591	50
01.01.01. 01	Task:												
	To pursue experimental development of scientific investigation of nature and to ensure the progress of doctoral studies	4396	4346	2591	50	4396	4346	2591	50	4396	4346	2591	50
01.01.01. 01.01	Measure:												
	To investigate the of natural ecosystems, Earth's entrails and surface and biological resources and to ensure experimental development of scientific research	4176	4126	2591	50	4176	4126	2591	50	4176	4126	2591	50
01.01.01. 01.02	Measure												
	To develop high-qqualityskilled researchers in biomedicine and physical sci	220	220			220	220			220	220		
	Total appropriations for the programme	4396	4346	2591	50	4396	4346	2591	50	4396	4346	2591	50
	According to funding sources:												
	1. State budget of the Republic of Lithuania	3596	3596	2591		3596	3596	2591		3596	3596	2591	
	From it:												
	1.1. General funding	3596	3596	2341		3596	3596	2341		3596	3596	2341	

	1.2. EU and other international funding												
	1.3. Special programme funds and income	800	750	250	50	800	750	250	50	800	750	250	50
	2. Other sources												

Table 3. Result and product assessment criteria and their values

Assessment criterion code	Names of objectives, tasks, and measurement units of assessment criteria	Assessment criteria values		
		2018	2019	2020
	Objective 1.To pursue fundamental research in natural sciences, to prepare high-skilled specialists			
R-01-01-01-01	Percentage of experimental development funds of the state budget appropriations (%)	30	30	30
R-01-01-01-02	Number of doctoral students	44	44	44
	Objective 1, task 1. To pursue global-level research in ecology, zoology, physiology and ecology, prepare high-skilled specialists, pursue experimental development in nature research			
P-01-01-01-01-01	Number of international scientific articles	115	115	115
P-01-01-01-01-02	Amount earned from the international projects and experimental development (thou. EUR)			

Table 4. Number of positions for 2018 according to institutions/organizations and groups of positions

No	Name of institution/organization	Number of positions								Expenditure for salaries, thou. EUR
		Heads and deputies of institution/organization		Heads and deputies of structural divisions		Specialists/officers that have no subordinates, and others		Total	Civil servants	
		Total	Civil servants	Total	Civil servants	Total	Civil servants			
1.	Nature Research Centre	4		8		313		325		2591
	Other subjects that receive budget funds*									
Total positions		4		8		313		325		2591
Total expenses for salaries		116	-	95	-	2380	-	2591	-	2591

The planned number of positions in budgetary institutions/organizations subordinate to managers of state budget appropriations (state politicians, state officers, prosecutors, judges, civil servants (including civil servants of political (personal) confidence and statutory civil servants), soldiers and employees), the salaries for the work of which are planned to be paid from the state budget and state monetary foundations should be indicated:

1. In section "heads and deputies of institution/organization", the heads and deputy heads of institutions and organizations, administration leaders, directors and deputy directors of departments (boards) should be indicated.

2. In section "heads and deputy heads of other divisions", the heads, deputy heads of divisions, subdivisions and other heads that have subordinate persons should be indicated.

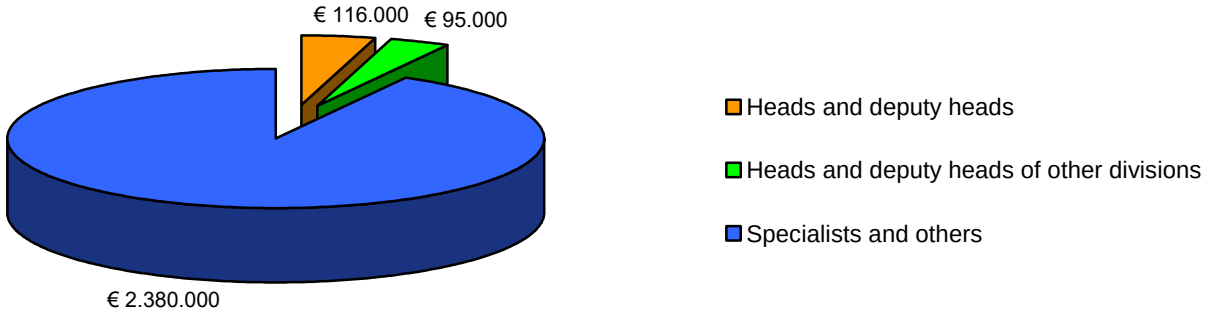
3. In section "specialists/officers that have no subordinates, and others" ,all other positions that do not fall under the group of heads should be indicated.

* In line "Other subjects that receive budget funds", the subjects according to clause 35 of Methods should be indicated.

The table could be supplemented with explanations about the number of positions depending on specific character of activities pursued by institutions and organizations.

Strategic planning methods

Annex 5
APPROVED
Executive Order of Director of Nature Research Centre



NATURE RESEARCH CENTRE'S ACTIVITIES PLAN 2018

Code of measure	Name of measure	Name of institution's action	Criteria for assessment of the process and/or input, measurement units and values	Responsible executives	Term of execution	State budget appropriations (thou. EUR)
	DEVELOPMENT OF NATIONAL SCIENCE AND SCIENTIFIC RESEARCH AND EXPERIMENTAL DEVELOPMENT IN NATURE RESEARCHAREAS					
01	To investigate the state of natural ecosystems, Earth's entrails and its surface, and biological resources and to ensure experimental development of scientific	To pursue fundamental research, publishtop-level scientific articles, conduct researcher activity monitoring	Part of scientific articles in international publicationsin the total number of published articles (per cent)	Heads of core units and laboratories	On a yearly basis	4176
02	2.To prepare high-skilled researchers in biomedicine and physical sciences	To participate in the process of doctoral studies, to prepare doctors in biomedicine and physical sciences	Number of doctoral students (N); part of doctoral students who successfully defended dissertation in the total number of doctoral students who completed doctoral studies (per cent)	Scientific secretary, doctoral supervisors	On a yearly basis	220

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Strategic planning methods

Annex 7

TECHNICAL ANNEX TO ASSESSMENT CRITERIA

2018–2020

(Reporting period)

Name	Code
Manager of state budget appropriations: Nature Research Centre	
Strategic goal: To pursue global-level scientific research and experimental development in nature research areas, to develop high-skilled researchers in these areas	01
Effect assessment criterion: Part of scientific articles in international publications in the total number of published articles (%)	E-01-01

1	Description	Assessment of what part the top-level scientific production – articles published in journals with impact factor – constitute in the Centre's scientific production
2	Is this a new assessment criterion?	Yes
3	Substantiation of the choice	The criterion allows assessing the institution's scientific production efficiency and dynamics. Articles in journals with impact factor are the main index according to the methods of assessment of scientific (art) works of research and higher education institutions.
4	Calculation method	X/Y*100, where X – number of articles published per year in journals with impact factor, Y – total number of scientific articles published per year
5	Data source	Individual and laboratory annual reports
6	Data audit	Checking of the compliance with the criterion of the articles published in impact factor journals per year, based on Thomson Reuters databases; Institutional data review by RCL experts
7	Periodicity of calculations	Once per year
8	Contact person responsible for assessment criterion	Deputy Director for Science (stancikaite@geo.lt)
9	Other information on reliability of the assessment criterion	

Name	Code
Manager of state budget appropriations: Nature Research Centre	
Strategic goal: To pursue global-level scientific research and experimental development in nature research areas, to develop high-skilled researchers in these areas	01
Effect assessment criterion: Amount of budget appropriations per one international scientific article (thou. EUR)	E-01-02

1	Description	Assessment of the amount of the institution's state budget appropriations per one top-level scientific production unit
2	Is this anew assessment criterion?	Yes
3	Substantiation of the choice	The criterion allows assessing the use of the institution's state budget appropriations for ensuring science level and dynamics
4	Calculation method	X/Y*100, where X – number of articles published in impact factor journals per year, Y – budget appropriations per year
5	Data source	Individual and laboratory annual reports Department of Economics and Finance
6	Data audit	Institutional data on science production reviewed by RCL experts; Internal control system
7	Periodicity of calculations	Once per year
8	Contact person responsible for the assessment criterion	Deputy Director for Science Miglė Stančikaitė (stancikaite@geo.lt)
9	Other Information on reliability of the assessment criterion	

Name	Code
Manager of state budget appropriations: Nature Research Centre	
To pursue global-level scientific research and experimental development in nature research areas, prepare high-skilled researchers in these areas	01
Programme:Development of nationalscience and scientific research and experimental development in nature research areas	01.01
Programme objective: To pursue fundamental research and experimental development in natural sciences and to develop high-skilled specialists	01.01.01
Result assessment criterion: Part of state budget appropriations for experimental development (%)	R-01-01-01-01

1	Description	Assessment of the part of state budget appropriations the institution receives for service provision
2	Is this a new assessment criterion?	Yes
3	Substantiation of the choice	The criterion allows assessing the institution's possibilities to earn additional funds
4	Calculation method	X/Y*100, where X – experimental development funds per year, Y – state budget appropriations per year
5	Data source	Department of Economics and Finance
6	Data audit	Internal control system
7	Periodicity of calculation	Once per year
8	Contact person responsible for the assessment criterion	Olga Narkevičienė (olga.narkeviciene@gamtostyrimai.lt)
9	Other Information on reliability of the assessment criterion	

Name	Code
Manager of state budget appropriations: Nature Research Centre	
Strategic goal: To pursue global level scientific research and experimental development in nature research areas and prepare high-skilled researchers in these areas	01
Programme: Development of national science and scientific research and experimental development in nature research areas	01.01
Programme objective: To pursue fundamental research and experimental development in natural sciences and to prepare high-skilled specialists	01.001.01
Result assessment criterion: Number of doctoral students	R-01-01-01-02

1	Description	Assessment of the number of doctoral students in the institution
2	Is this a new assessment criterion?	No
3	Substantiation of the choice	The number of doctoral students indicates the potential of development of high-skilled researchers
4	Calculation method	N, where N – number of doctoral students in the institution per year
5	Data source	Human Resources Department
6	Data audit	Internal control system;Research Council of Lithuania
7	Periodicity of calculation	Once per year
8	Contact person responsible for the assessment criterion	Chief Staff Specialist, Acting Head of Human Resources Department Jurga Šilinskaitė (jurga.silinskaite@gamtostyrimai.lt)
9	Other Information on reliability of the assessment criterion	

Name	Code
Manager of state budget appropriations: Nature Research Centre	
Strategic goal: To pursue global level scientific research and experimental development in nature research areas and develop high-skilled researchers in these areas	01
Programme: Development of national science and scientific research and experimental development in nature research areas	01.01
Programme objective: To pursue fundamental research and experimental development in natural sciences and to develop high-skilled specialists	01.01.01
Product assessment criterion: Number of international scientific articles	P-01-01-01-01-01

1	Description	Assessment of scientific potential and its dynamics
2	Is this a new assessment criterion?	Yes
3	Substantiation of the choice	The criterion allows qualitative evaluation of the institution's top-level scientific production
4	Calculation method	N, where N – number of published international scientific articles per year
5	Data source	Individual and laboratory annual reports
6	Data audit	Checking of the compliance with the criterion of the articles published in impact factor journals per year, based on Thomson Reuters data bases; Institutional data review by RCL experts
7	Periodicity of calculation	Once per tear
8	Contact person responsible for the assessment criterion	Deputy Director for Science Miglė Stančikaitė (stancikaite@geo.lt)
9	Other Information on reliability of the assessment criterion	

Name	Code
Manager of state budget appropriations: Nature Research Centre	
Strategic goal: To pursue global level scientific research and experimental development in nature research areas and develop high-skilled researchers in these areas	01
Programme: Development of national science and scientific research and experimental development in nature research areas	01.01
Programme objective: To pursue fundamental research and experimental development in natural sciences and to develop high-skilled specialists	01.01.01
Product assessment criterion: Amounts earned from international projects and experimental development, thou. EUR	P-01-01-01-01-02

1	Description	Assessment of amount s earned from international projects and experimental development works
2	Is this a new assessment criterion?	Yes
3	Substantiation of the choice	The criterion allows assessing the institution's capability to attract and implement international and experimental development projects, their dynamics
4	Calculation method	N, where N – funds received per year for implementation of international projects and experimental development works
5	Data source	Department of Economics and Finance
6	Data audit	Internal audit system
7	Periodicity of calculation	Once per year
8	Contact person responsible for the assessment criterion	Miglė Stančikaitė (migle.stancikaite@gamtostyrimai.lt)
9	Other Information on reliability of the assessment criterion	

(Manager of budget appropriations) (Signature) (Name and surname)

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