EISCAT Scientific Association
Registered as a Swedish non-profit organisation
Organisation number: 897300-2549

Annual financial report for the year 2022-01-01 – 2022-12-31

The EISCAT Council and the Director for the Association submits herewith the annual report for 2022.

ADMINISTRATION REPORT

Ownership, organisation and objective

The EISCAT Scientific Association was established in 1975 through an agreement between six European organisations. Japan joined in 1996 and the People's Republic of China in 2007.

The EISCAT Associates at 2022-12-31 are: China Research Institute of Radiowave Propagation (People's Republic of China), National Institute of Polar Research (Japan), Norges forskningsråd (Norway), Suomen Akatemia (Finland), UK Research and Innovation (United Kingdom of Great Britain and Northern Ireland) and Vetenskapsrådet (Sweden).

The now-running EISCAT Agreement came into force 2017-06-20, with all Associates making long term funding commitments to the Association. The Association has its formal seat in Kiruna, Sweden, and is registered as a non-profit organisation.

The aim of the Association is to make significant progress in the understanding of physical processes in geospace, in the high latitude atmosphere, and in the coupling between the high and low latitudes and altitudes. For this purpose, the Association has developed, constructed, and now operates, a number of radar facilities at high latitudes. At present, these comprise a system of stations at Tromsø (Norway), Kiruna (Sweden), Sodankylä (Finland), and Longyearbyen (Svalbard). The new system, EISCAT_3D, is currently being constructed.

The Association is fully funded by the Associates, but additional operations may also be funded by short term additional contributions from both Associate and non-Associate bodies. Depending on the available funding, scientific priorities and operational targets are adjusted on an annual basis.

The EISCAT Council is charged with the overall administration and supervision of the Association's activities. The Council appoints a Director, who is responsible for the daily management and operation of the facilities of the Association.

Operation and scientific development

The EISCAT Radars systems operated reliably throughout the year and 2 007 hours were accounted in 2022 (1 938 hours in 2021).

Common Programmes amounted to 38% (39%) of the operations. Special Programmes amounted to 52% (56%) and other operations amounted to 10% (5%) of the total hours.

Affiliates from Germany and South Korea made use of their access to the systems and totally 140 hours (24 hours) were accounted the affiliates. The Peer-Review Programme (PP) made it possible for user groups from Belgium and Germany to run experiments, at no cost, on the systems. In the beginning of the year, a Russian group ran a PP-campaign. Their access was thereafter cancelled. PP-time amounted to 36 accounted hours (86 hours). The new Transnational Access (TNA) project, PITHIA-NRF, funded two campaigns in 2022. Totally 18 hours (0 hours) were TNA-hours.

Future operation and scientific development
The current EISCAT systems are ready for users. These include the EISCAT Svalbard Radar, Heating and the UHF and VHF radars with the possibility to run the VHF in tristatic mode.

The new EISCAT_3D radar system is being constructed. EISCAT_3D will replace the current UHF and VHF radar systems. The new system comprises three phased arrays working together. These are currently built in Finland, Norway, and Sweden. The construction of EISCAT_3D suffers from delays due to earlier COVID-19 effects, components shortages and travel restrictions. It is expected that most of the hardware installations can be completed late 2023 followed by system commissioning and first regular full system operations in 2024. The old mainland UHF and VHF radar systems, which will be replaced by the new EISCAT_3D system, will be decommissioned latest at that time.

Project activities
In 2022, five externally funded projects are ongoing, whereof three are European Commission funded: EGI-ACE, ENVRI-FAIR and PITHIA-NRF.

EISCAT_3D project
The ongoing EISCAT_3D Stage 1 (E3DS1) construction project continued in fast pace throughout the year. The site buildings are almost ready for takeover and the site infrastructure are mostly completed. The antenna system delivered from P. R. China arrived harbour in Norway in September 2022 and was thereafter transported to the three EISCAT_3D sites. Installation of the units commenced thereafter. The installation works were tendered, and two companies were contracted for the work. The plan is to have the antenna installation fully completed latest summer 2023. Installation of the radar electronics will be done thereafter.

The work of the Council and its committees
The EISCAT Council had two regular meetings and an extraordinary one in 2022. The spring meeting was a hybrid meeting with most members present in Helsinki, Finland. That meeting had a follow-up hybrid session on Arlanda, Sweden, in September. The regular autumn meeting was also held as hybrid with most members present in Cambridge, UK. The meetings were chaired by Prof. Anita Aikio. In addition to regular matters, Council considered regulatory and legal matters relating to operating the new EISCAT_3D system. For that reason, Council formed a working group to assess this further. Members in the group are the delegates from the EISCAT_3D host countries, Finland, Norway, and Sweden. The findings and recommendations from the working group will be considered further during 2023. In the autumn meeting, Council thanked the outgoing Director, Dr. Craig Heinselman for his services to the Association over the last 10 years. The new Director, Dr. Axel Steuwer starts his term 2023-01-01. At the end of the year, Prof. Aikio handed over the Chairpersonship to Prof. Jörg Gumbel, who will be leading Council for the next two years, 2023 and 2024.

The regular Council committees, the Administrative and Finance Committee (AFC) and the Scientific Advisory Committee (SAC) both had two meetings each during the year. The spring meetings were on-line only and the autumn meetings were hybrid.

Budget development during the year

The 2022 operations ended below the budgeted target. Apart from operations, the Association has much recovered from COVID-19 effects and EISCAT scientists attended conferences and meetings much as before. The 20th International EISCAT Symposium was held in Eskilstuna, Sweden, in August and over 100 participants attending either physically or on-line.

The actual contributions from Associates and Affiliates became higher than budgeted due to changes in exchange rates. Less operations meant reduced costs, but electricity and staff expenses became higher due to costlier kWh costs and one-off costs. The overall operating costs ended much on target.

In summary, the year ended in a small net profit.

The long-term budget plan

The long-term budget plan remains on a challenging but feasible level, at least during the first years. Additional income via grants or other revenues will be needed to better utilise the new investments.

The result for 2022 and profit/loss handling

The year ended in a net profit of 501 kSEK, which will be added to the designated surplus fund for use in subsequent years.

PROFIT AND LOSS ACCOUNTS

in thousands of Swedish Crowns

	Note 1	*2022*	*2021*
Income from operations			
Grants received	Note 2	157 694	152 331
Revenue from operations	Note 3	0	0
Other income from operations	Note 4	83	460
		157 778	152 791
Expenses from operations			
Operation costs	Note 5	-17 541	-6 448
Administration costs		-3 002	-17 314
Personnel costs	Note 6	-29 581	-26 671
Depreciation of fixed assets		-8 720	-8 677
		-58 843	-59 110
Operating profit/loss		**98 935**	**93 681**
Financial items			
Interest income		1 442	16
Other financial income and cost		-1 695	13 380
		-253	13 396
Other items			
Income from sold inventory		37	35
Net profit/loss for the year		**98 718**	**107 113**

Changes in designated funds	Note 7		
Net profit/loss for the year		98 718	107 113
Use of designated investment funds		-75 099	-74 091
Use of other designated funds		-1 002	-93
Allocation of unused designated investment and other funds		-22 116	-32 904
Net profit/loss for the year after redistributions		**501**	**25**

BALANCE SHEET

in thousands of Swedish Crowns

		2022	*2021*
ASSETS			
Fixed assets			
Tangible fixed assets	Note 8		
Buildings		84 976	74 115
Radar systems		268 551	204 742
Equipment and tools		2 538	2 109
		356 065	280 966
Current assets			
Receivables		4 394	1 969
Prepayments and accrued income	Note 9	4 434	3 008
Cash at bank and in hand	Note 10	232 988	328 314
		241 816	333 291
Total assets		**597 881**	**614 257**
CAPITAL AND LIABILITIES			
Capital			
Funds invested	Note 11	356 065	280 966
Designated funds	Note 12	76 452	69 376
Net income for the year after redistribution		501	25
		433 018	350 366
Current liabilities			
Accounts payable, trade		33 682	23 883
EISCAT_3D build grants received but not used	Note 13	125 395	231 882
External project grants received but not used	Note 14	4 416	6 224
Other liabilities		1 371	1 901
		164 863	263 891
Total capital and liabilities		**597 881**	**614 257**

STATEMENT OF CASH FLOWS

in thousands of Swedish Crowns

	2022	*2021*
Operating activities		
Operating result before financial items	98 935	93 681
Transfer from funds invested	8 720	8 677
Interest received	1 442	16
Financial income and cost	-1 695	13 380
Other income and cost	37	35
Increase/decrease of receivables	-2 425	35 510
Increase/decrease of prepayments and accrued income	-1 425	171
Increase/decrease of creditors and liabilities	-99 028	-42 513
Adjustment for items not included in cash flow	-16 067	-11 421
Cash flow from operations	**-11 507**	**97 536**
Investment activities		
Investments in tangible assets	-83 819	-82 768
Cash flow from investment activities	**-83 819**	**-82 768**
Cash flow for the year	**-95 326**	**14 767**
Liquid assets at the beginning of the year	**328 314**	**313 547**
Liquid assets at the end of the year	**232 988**	**328 314**

NOTES	2022	2021

Note 1 *Accounting principles*

The accounting and valuation principles applied are consistent with the provisions of the Swedish Annual Accounts Act and generally accepted accounting principles (for 2017 onwards, bokföringsnämnden allmänna råd och vägledningar, BFNAR 2012:1 K3).

All amounts are in thousands of Swedish kronor (SEK) unless otherwise stated.

Income

Received grants are reported as income in the period when they were claimed or received. Conditional grants are recognised as income when the associated conditions have been met. Income and revenue from operations, which include own-account funds, are reported as income when they were claimed or received. Grants and other income in foreign currencies have been accounted in the amounts estimated to be received, based on individual assessment.

Employee benefits

Ongoing remuneration to employees, either direct employed or provided via host agreements, in the form of salaries, social security, contributions to pension schemes and staff related insurances are accounted as personnel costs. Other remunerations, in cash, like travel subsistences or as benefits in-kind, like clothing, training and health care are also accounted as personnel costs. Overhead cost on host provided personnel is considered as external services accounted as administration cost.

Financial income

Dividends and interest income are accounted when credited the account.

Receivables

Receivables are stated at the amounts estimated to be received, based on individual assessment.

Receivables and payables in foreign currencies

Receivables and payables in foreign currencies are valued at the closing day rate. Where hedging measures have been used, such as forwarding contracts, the agreed exchange rate is applied. Gains and losses relating to operations are accounted for under other financial income and cost.

Bank accounts in foreign currencies

Bank balances in foreign currencies are valued at the closing day rate.

Fixed assets

Tangible fixed assets are stated at their original acquisition values after deduction of depreciation according to plan. Assets are depreciated systematically over their estimated useful lives. The following periods of depreciation are applied: Buildings 5 - 50 years, Radar systems 3 - 30 years and Equipment and tools 1 - 5 years.

Note 2 *Grants received*

The Associates contributed to the operation during the year in accordance with the EISCAT agreement and later additions. The Affiliates contributed according to agreed annual commitments. Income from European Commission (EC) funded projects were also accounted as received grants. The E3DS1 project started 2017-09-01 and the resulting projects costs were covered by the Associates (see Note 13) and other funds. Received project grants from the Associates are first accounted as prefinancing. Project costs are thereafter covered by withdrawals from prefinancing and at that time accounted as income from operations.

	2022	2021
Associates	40 874	33 764
Affiliates	1 585	1 891
Project grants, EC	3 853	3 114
Project grant, E3DS1	111 382	113 562
	157 694	152 331

Accumulated Associate contributions status as of 2022-12-31

Annual contributions included and for 2022, Finland, Japan (in cash and in-kind), Norway and Sweden were credited for providing E3DS1 project-related funds. These sums are used for EISCATs ownership and time-share calculation

Associate P. R. of China	57 710	53 337
Associate Finland	173 587	146 056
Associate Japan	126 684	117 118
Associate Norway	416 481	330 028
Associate Sweden	317 597	295 373
Associate UK	320 465	317 806
Previous Associates	382 168	382 168
	1 794 691	1 641 886

Note 3 *Revenue from operations*

The Association can, at rates related to the costs involved and as available, sell observation hours to Associates, Affiliates and other parties. Income from such selling of time are considered to be revenue. In 2022, no time-buyers used the systems.

Income from time-buyers	0	0

Note 4 *Other income from operations*

The Association supports visiting users by offering site accommodation and equipment hosting for either campaign brought instruments or for longer deployments. Educational support is done by providing teachers and/or other resources (like laboratory support).

Accommodation	33	4
Instrument hosting agreements	21	21
Educational support	23	18
Other income	7	416
	83	460

Note 5 *Operations*

The annual operating target for all systems together is about 2 500 active (high power mode) hours. For 2022, the budget assumed 2 524 hours and the outcome became 1 966 hours. Passive hours come in addition. Such hours have a minimal effect on cost since the systems do not draw more electricity than in an off mode. Accounted hours are usually lower than the sum of operating hours since some systems have a charge rate that is less than 1-to-1.

Active hours (high-power), per system	*Hours*	*Hours*
EISCAT Svalbard Radar	637	745
UHF system	896	774
VHF system	384	330
Heating system	49	55
	1 966	1 903
Passive hours (receive only)		
Kiruna receiver system	132	117
Sodankylä receiver system	132	117
	264	233

	2022	2021
Accounted hours	*Hours*	*Hours*
Common programmes	768	751
Special programmes	1 046	1 078
Other hours	194	110
	2 007	1 938
Distribution of special programme hours between Associates		
Associate P. R. of China	59	0
Associate Finland	153	165
Associate Japan	123	115
Associate Norway	254	240
Associate Sweden	208	240
Associate UK	153	218
All Associates, AA-runs	96	100
	1 046	1 078
Distribution, other hours		
Affiliates	140	24
EISCAT staff and tests	0	0
Peer-reviewed and TNA campaigns	54	86
Timebuyers	0	0
	194	110

Note 6 *Personnel costs and average number of employees*

The Association employs directly Headquarters and most project staff, currently about 19 positions, including the Director and Director Designate. The Headquarters is located in Kiruna, Sweden. The personnel working at the Kiruna (Sweden), Sodankylä (Finland), Svalbard and Tromsø (Norway) sites are normally not employed by the Association. Instead, the personnel are provided via site contracts by the Swedish Institute of Space Physics (Kiruna site staff but currently none), Oulu University (Sodankylä staff) and the Arctic University of Norway (Tromsø and Svalbard staff). The Association refunds all expenses related to the provided staff, as well as an additional overhead.

Personnel costs in total		
Salaries and emoluments paid to the Director	2 418	2 153
Other personnel, employed and provided via site contracts	17 553	16 539
Social security contributions amounted to	9 064	7 863
of which for pension costs	*4 318*	*3 748*
Other personnel costs	546	115

The current Director is Dr. Axel Steuwer. He joined the Association as Director Designate 2022-05-01 and assumed the role as Director 2023-01-01. His employment is for initially five years. The previous Director, Dr. Craig Heinselman, left the Association 2022-12-31.

Of the pension costs, 373 kSEK (373 kSEK) relates to the previous Director. The Director and all other directly employed staff are included in ITP like occupational pension plans. For the personnel provided via site contracts, the pension plans are handled by their respective employer.

The members of the board (EISCAT Council) and members of committees, who represents Associates and Affiliates, do not receive remunerations from the Association. Travel expenses in connection with Council and committee meetings are normally covered by the Associates and Affiliates. The Association reimburses though the travel costs for Committee Chairpersons and external members.

	2022	2021
Salaries and emoluments and average number of staff per country		
Finland		
Salaries and emoluments	718	686
Average number of staff - men and women	1 + 0	1 + 0
Norway (including Svalbard)		
Salaries and emoluments	4 612	4 725
Average number of staff - men and women	7 + 0	7 + 0
Sweden		
Salaries and emoluments	14 641	13 281
Average number of staff - men and women	15 + 4	14 + 3

Members of the board and Directors at year-end - men and women

The board consist of delegations from every Associate country each having a Delegate (formal member) and up to two Representatives.

Board members (EISCAT Council)	11 + 3	11 + 3
Directors	1 + 0	1 + 0

Note 7 *Changes in designated funds*

Positive numbers - use of designated funds. Negative - transfer to the designated reserves or funds for later use.

Net profit/loss for the year	98 718	107 113
Transfers between regular EISCAT and EISCAT_3D construction project	-16 067	-11 420
Changes to capital operating reserve	-100	-97
Changes to decommissioning fund	-2 651	-2 623
Changes to E3D construction reserve	-3 397	-3 360
Changes to five-year operating reserve	0	-15 500
Changes to funds invested	-75 099	-74 091
Changes to spare parts reserve	-15	4
Changes to surplus fund	-887	0
	501	25

Note 8 *Tangible fixed assets*

Changes in tangible fixed assets.

Buildings		
Opening acquisition value	115 783	96 400
Acquisitions during the year	11 353	19 383
Disposals during the year	0	0
Closing acquisition value	127 135	115 783
Opening accumulated depreciation	-41 668	-41 177
Depreciations during the year	-491	-492
Disposals during the year	0	0
Closing accumulated depreciation	-42 160	-41 668
Closing residual value	84 976	74 115
Radar systems		
Opening acquisition value	476 572	414 152
Acquisitions during the year	71 039	62 420
Disposals during the year	0	0
Closing acquisition value	547 611	476 572
Opening accumulated depreciation	-271 830	-264 616
Depreciations during the year	-7 231	-7 213
Disposals during the year	0	0
Closing accumulated depreciation	-279 061	-271 830
Closing residual value	268 551	204 742

	2022	2021
Equipment and tools		
Opening acquisition value	36 557	36 306
Acquisitions during the year	1 427	965
Disposals during the year	-559	-715
Closing acquisition value	37 424	36 557
Opening accumulated depreciation	-34 448	-34 191
Depreciations during the year	-997	-972
Disposals during the year	559	715
Closing accumulated depreciation	-34 886	-34 448
Closing residual value	2 538	2 109
Sum tangible fixed assets	356 065	280 966

Note 9 *Prepayments and accrued income*

Resources in staff and direct costs spent in ongoing externally funded projects are covered by accrued income until settled by submission of periodic report claims. In 2022, five externally funded projects are ongoing whereof three are EC funded: EGI-ACE, ENVRI-FAIR and PITHIA-NRF.

Prepaid rents	9	9
Prepaid insurances	1 107	852
Accrued income, EGI-ACE project	245	459
Accrued income, ENVRI-FAIR project	1 488	0
Accrued income, PITHIA-NRF project	342	1 459
Accrued income, other projects	24	10
Other items	1 220	219
	4 434	3 008

Note 10 *Bank balances status*

Nordea	232 988	328 314
Cash in hand	0	0
	232 988	328 314

Note 11 *Funds invested status*

Buildings	84 976	74 115
Radar Systems	268 551	204 742
Equipment and Tools	2 538	2 109
	356 065	280 966

Note 12 *Designated funds*

The designated funds are divided into funds and reserves. The Surplus fund and Five-year operating reserve are used for budget transfers between periods in the five years plan. The other funds are earmarked for specific purposes.

Capital operating reserve	3 254	3 154
E3D construction reserve	15 183	11 786
Decommissioning fund	11 850	9 198
Equipment repair fund	754	754
Five-year operating reserve	15 500	15 500
Investment fund	7 753	7 753
Restructuring reserve	4 101	4 101
Spare parts reserve	95	80
Surplus fund	17 962	17 050
	76 452	69 376

Note 13 *EISCAT_3D build grants received but not used*

The construction project, E3DS1, started 2017-09-01 and the completion of the first phase, Stage 1, is delayed. We estimate that most of the installations can be completed in 2023 but system commissioning will continue into 2024.

	2022	2021

Most Associates have now committed to its realisation. An E3DS1 specific funding payment was received from Japan in 2022 and a budgeted transfer from the regular budget to the construction project was done. Associate funds are kept as prefinancing until used in the project. Funds spent are deducted from the different funding sources in accordance with the agreed funding plan.

Changes in EISCAT_3D build grants received but not used

Associate Finland		
Opening balance	62 567	42 948
Received during the year	0	25 749
Used during the year	-19 557	-6 131
Closing balance	43 009	62 567
Associate Japan		
Opening balance	16 367	23 765
Received during the year	1 108	6 898
Used during the year	-7 261	-14 297
Closing balance	10 214	16 367
Associate Norway		
Opening balance	110 432	176 580
Received during the year	0	0
Used during the year	-73 679	-66 148
Closing balance	36 753	110 432
Associate Sweden		
Opening balance	10 884	37 870
Received during the year	0	0
Used during the year	-10 884	-26 986
Closing balance	0	10 884
Regular EISCAT		
Opening balance	0	0
Received during the year	16 263	0
Used during the year	0	0
Closing balance	16 263	0
E3DS1 project finances, gains/losses		
Opening balance	9 560	-1 861
Changes during the year	-196	11 420
Closing balance	9 364	9 560
Local taxes Sweden contribution		
Opening balance	22 073	0
Received during the year	0	26 000
Used during the year	-12 281	-3 927
Closing balance	9 792	22 073
Sum EISCAT_3D received build grants	125 395	231 882

Note 14 *External project grants received but not used*

Most externally funded projects work with prefinancing. For European Commission projects, these are in EUR's. The prefinancing is used to cover reported and approved costs.

EGI-ACE H2020 prefinancing	-42	480
ENVRI-FAIR H2020 prefinancing	1 169	2 725
PITHIA-NRF H2020 prefinancing	3 289	3 019
	4 416	6 224

Skibotn, 2023-06-01

Dr. Mervyn Freeman

Prof. Hiroshi Miyaoka

Dr. Kati Sulonen

Dr. Pål Sørgaard

Dr. Maria Thuveson

Prof. Jian Wu

Dr. Axel Steuwer
Director

Our audit report was issued on 2023-06-26
Öhrlings PricewaterhouseCoopers AB

Mr. Jonas Åkerlund
Authorised Public Accountant

Skibotn, 2023-06-01

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Mr. Jonas Åkerlund
Authorised Public Accountant

Auditor's report

To the council of EISCAT Scientific Association, corporate identity number 897300-2549

Report on the annual accounts

Opinions

We have audited the annual accounts of EISCAT Scientific Association for the year 2022.

In our opinion, the annual accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of EISCAT Scientific Association as of 31 December 2022 and its financial performance and cash flow for the year then ended in accordance with the Annual Accounts Act. The statutory administration report is consistent with the other parts of the annual accounts.

Basis for Opinions

We conducted our audit in accordance with International Standards on Auditing (ISA) and generally accepted auditing standards in Sweden. Our responsibilities under those standards are further described in the *Auditor's Responsibilities* section. We are independent of EISCAT Scientific Association in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions.

Responsibilities of the council and the director

The council and the director are responsible for the preparation of the annual accounts and that they give a fair presentation in accordance with the Annual Accounts Act. The council and the director are also responsible for such internal control as they determine is necessary to enable the preparation of annual accounts that are free from material misstatement, whether due to fraud or error.

In preparing the annual accounts, the council and the director are responsible for the assessment of the association's ability to continue as a going concern. They disclose, as applicable, matters related to going concern and using the going concern basis of accounting. The going concern basis of accounting is however not applied if the council and the director intends to liquidate the association, to cease operations, or has no realistic alternative but to do so.

Auditor's responsibility

Our objectives are to obtain reasonable assurance about whether the annual accounts as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs and generally accepted auditing standards in Sweden will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these annual accounts.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the annual accounts, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of the association's internal control relevant to our audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the association's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the council and the director.
- Conclude on the appropriateness of the councils' and the director's use of the going concern basis of accounting in preparing the annual accounts. We also draw a conclusion, based on the audit evidence obtained, as to whether any material uncertainty exists related to events or conditions that may cast significant doubt on the association's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in out auditor's report to the related disclosures in the annual accounts or, if such disclosures are inadequate, to modify our opinion about the annual accounts. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the association to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the annual accounts, including the disclosures, and whether the annual accounts represent the underlying transactions and events in a manner that achieves fair presentation.

We must inform the council, among other matters, the planned scope and timing of the audit. We must also inform of significant audit findings during our audit, including any significant deficiencies in internal control that we identified.

Report on other legal and regulatory requirements

Opinions

In addition to our audit of the annual accounts, we have also audited the administration of the council and the director of EISCAT Scientific Association for the year 2022. The council and the director have not acted in contravention of the statutes.

Basis for Opinions

We conducted the audit in accordance with generally accepted auditing standards in Sweden. Our responsibilities under those standards are further described in the *Auditor's Responsibilities* section. We are independent of EISCAT Scientific Association in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions.

Responsibilities of the Council and the director

The council and the director are responsible for the association's organization and the administration of the association's affairs.

Auditor's responsibility

Our objective concerning the audit of the administration, and thereby our opinion about discharge from liability, is to obtain audit evidence to assess with a reasonable degree of assurance whether any member of the council or the director in any material respect:

- has undertaken any action or been guilty of any omission which can give rise to liability to the association, or
- in any other way has acted in contravention of the Annual Accounts Act or the statutes.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with generally accepted auditing standards in Sweden will always detect actions or omissions that can give rise to liability to the association.

As part of an audit in accordance with generally accepted auditing standards in Sweden, we exercise professional judgment and maintain professional scepticism throughout the audit. The examination of the administration is based primarily on the audit of the accounts. Additional audit procedures performed are based on our professional judgment with starting point in risk and materiality. This means that we focus the examination on such actions, areas and relationships that are material for the operations and where deviations and violations would have particular importance for the association's situation. We examine and test decisions undertaken, support for decisions, actions taken and other circumstances that are relevant to our opinion.

Gävle, 2023-06-26

Öhrlings PricewaterhouseCoopers AB

Jonas Åkerlund
Authorised Public Accountant