

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

Annual financial report for the year 2019-01-01 – 2019-12-31

The EISCAT Council and the Director for the Association submits herewith the annual report for 2019.

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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 2019-12-31 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). A 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 delivered a full programme of operations for the user community and operated reliably throughout the year.

The various EISCAT radars operated for a total of 2 043 accounted hours (2 202 hours in 2018).

Common Programmes amounted to 52% (48%) of the operations. Special Programmes amounted to 44% (45%) and other operations amounted to 4% (7%) of the total hours.

IRAP-CNRS (France), KASI (South Korea), KOPRI (South Korea) and IRA-NASU (Ukraine) have Affiliate agreements and totally 12 hours (57 hours) were accounted to the affiliates. The Peer-Review Programme made it possible for user groups from Germany, Russia and USA to run experiments, at no cost, on the systems. Peer-Review time amounted to 58 accounted hours (99 hours).

Future operation and scientific development

All 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 by using the antennas in Kiruna and Sodankylä for reception.

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 will be built in Finland, Norway and Sweden.

The new EISCAT_3D system will be ready for users in 2022. The old UHF and VHF radar systems will be decommissioned at that time.

Project activities

A new European Commission funded project, ENVRI-FAIR “Environmental Research Infrastructures building Fair services Accessible for society, Innovation and Research” started 2019-01-01. EISCATs involvement is over four years and totals about 6 MSEK in project funds.

Three European Commission projects, AARC2, COOP_Plus and ENVRI_Plus, ended in 2019.

EISCAT led a consortium comprised of five partners, including EISCAT, which submitted a proposal in response to a H2020 INFRADEV call with deadline in March 2019. The proposal, EISCAT3D-GO was targeted towards “securing the position of EISCAT_3D as an integral part in the scientific community and to realise the full potential of its capabilities to facilitate the needs of the users, both present and potential, when it starts its operations”. The proposal was unfortunately not funded.

EISCAT_3D project

The now ongoing EISCAT_3D Stage 1 (E3DS1) construction project is progressing well. Most industry contracts are now in place and ground works at two of the sites, in Skibotn, Norway and Karesuvanto, Finland, were mostly completed by the summer of 2019. The ground works in Skibotn proved to be difficult due to discoveries of quick clay and the resulting cost greatly exceeded the initial estimate. The cost overrun can be absorbed in the overall project planning.

A “programmers team” has now been formed and comprised of 3.5 persons as direct employees plus additional support from Japan. The full E3DS1 project team, including the programmers, amount to 10.5 persons. These positions are funded by the construction project. Regular EISCAT staff and additional support complements the project with an additional 3-4 persons.

The first delivery of the antenna system, for Skibotn, will unfortunately be delayed by one year, meaning installation in 2021 instead of 2020 as planned. This delay may also have consequences for installation at the other two sites, in Finland and Sweden. If so, installation at these sites would then happen in 2022 instead of 2021. The antenna delivery is delayed due to initially some design issues and later to the Corona virus outbreak in P. R. of China, where the units will be manufactured.

The delay will have some financial implications in the project mainly due to the need to keep project staff longer than planned. For the industry deliveries, the delay will mainly be related to a need to possibly store the delivered units near the construction sites for possibly a long period before these can be installed.

An unexpected problem has occurred related to the Swedish site where the local Same village have changed their mind about the location they proposed in 2015. Now they consider the location bad for them. Hopefully, this can be resolved in 2020. If not, an alternative location needs to be found. The primary objective would then be to find a new site in Sweden.

The work of the Council and its committees

The Council had two ordinary meetings, in June 2019, Tokyo, Japan and in November 2019 Oslo, Norway. The meetings were chaired by Prof. Ingrid Mann.

The regular Council committees, the Administrative and Finance Committee (AFC) and the Scientific Advisory Committee (SAC) both had two meetings each during the year.

Budget development during the year

The 2019 operations ended a bit below the budgeted target. This was due to fewer scheduled user operations. The radar systems have functioned well and the need for repairs have been even lower than usual. Staff availability has also been high. Two planned staff reductions were implemented as planned. With the construction of EISCAT_3D, the staff needs will change, and a new staff complement plan is being developed for implementation in 2021-2022.

In summary, operating costs were below budget and income was much as expected. In total, the year ended in a net profit.

The long-term budget plan

The long-term budget plan remains challenging but feasible. The operating cost implications for the *new EISCAT*, with EISCAT_3D as the main system on the mainland, are well understood and with the doubling of the annual contribution from at least the Nordic countries, balanced budgets are within reach, though with less operations than optimal. Additional income via grants or other revenues will be needed to better utilise the new investments.

The result for 2019 and profit/loss handling

The year ended in a net profit of 2 564 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	2019	2018
Income from operations			
Grants received	Note 2	122 166	119 127
Revenue from operations	Note 3	0	96
Other income from operations	Note 4	173	762
		<u>122 340</u>	<u>119 984</u>
Expenses from operations			
Operation costs	Note 5	-6 748	-6 481
Administration costs		-4 207	-4 102
Personnel costs	Note 6	-26 390	-24 066
Depreciation of fixed assets		-8 938	-5 116
		<u>-46 283</u>	<u>-39 765</u>
Operating profit/loss		76 056	80 220
Financial items			
Interest income		675	28
Other financial income and cost		6 284	-1 479
		<u>6 960</u>	<u>-1 451</u>
Net profit/loss for the year		83 016	78 769
Changes in designated funds	Note 7		
Net profit/loss for the year		83 016	78 769
Use of designated investment funds		-69 177	-72 047
Use of other designated funds		435	199
Allocation of unused designated investment and other funds		-11 710	-4 989
Net profit/loss for the year after redistributions		2 564	1 933

BALANCE SHEET

in thousands of Swedish Crowns

		2019	2018
ASSETS			
<i>Fixed assets</i>			
Tangible fixed assets	Note 8		
Buildings		53 263	5 059
Radar systems		108 287	87 311
Equipment and tools		2 258	2 261
		<u>163 808</u>	<u>94 631</u>
Current assets			
Receivables		8 585	84 555
Prepayments and accrued income	Note 9	2 201	3 691
Cash at bank and in hand	Note 10	246 678	131 223
		<u>257 463</u>	<u>219 470</u>
Total assets		421 271	314 101
CAPITAL AND LIABILITIES			
Capital			
Funds invested	Note 11	163 808	94 631
Designated funds	Note 12	38 135	29 395
Net income for the year after redistribution		2 564	1 933
		<u>204 506</u>	<u>125 959</u>
Current liabilities			
Accounts payable, trade		6 998	8 818
EISCAT_3D build grants received but not used	Note 13	202 873	174 823
External project grants received but not used	Note 14	6 465	3 907
Other liabilities		430	595
		<u>216 765</u>	<u>188 142</u>
Total capital and liabilities		421 271	314 101

STATEMENT OF CASH FLOWS

in thousands of Swedish Crowns

	2019	2018
Operating activities		
Operating result before financial items	76 056	80 220
Transfer from funds invested	8 938	5 116
Interest received	675	28
Currency exchange rate changes	4 645	-1 479
Extra ordinary income and cost	1 640	0
Increase/decrease of receivables	75 970	-60 037
Increase/decrease of prepayments and accrued income	1 490	-1 434
Increase/decrease of creditors and liabilities	28 623	109 862
Adjustment for items not included in cash flow	-4 469	0
Cash flow from operations	193 569	132 277
Investment activities		
Investments in tangible assets	-78 115	-77 163
Cash flow from investment activities	-78 115	-77 163
Cash flow for the year	115 454	55 114
Liquid assets at the beginning of the year	131 223	76 109
Liquid assets at the end of the year	246 678	131 223

NOTES	2019	2018	2019	2018
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 vägledning, 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. 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 funding agencies (see also Note 13). All received project grants are first accounted as prefinancing. Project costs are thereafter covered by withdrawals from prefinancing and at that time accounted as income from operations.				
Associates	23 887	23 348		
Affiliates	819	811		
Project grants, EC	2 761	3 078		
Project grant, E3DS1	94 699	91 890		
	<u>122 166</u>	<u>119 127</u>		
Accumulated Associate contributions status as of 2019-12-31				
Annual contributions included and for 2019, Finland, 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	45 490	41 407		
Associate Finland	113 946	89 419		
Associate Japan	97 610	95 772		
Associate Norway	222 635	183 670		
Associate Sweden	238 538	191 915		
Associate UK	312 715	310 164		
Previous Associates	382 168	382 168		
	<u>1 413 102</u>	<u>1 294 516</u>		
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 2019, no time-buyers used the systems.				
Income from time-buyers	0	96		
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). Associates and/or user-groups contribute occasionally to system improvements by funding, of own interest, certain repairs or hardware changes.				
Accommodation	104	124		
Instrument hosting agreements	21	21		
Educational support	35	19		
Other income	13	597		
	<u>173</u>	<u>762</u>		
Note 5 Operations				
The annual operating target for all systems together is about 2 500 active (high power mode) hours. For 2019, the budget assumed 2 468 hours and the outcome became 1 955 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	<i>Hours</i>	<i>Hours</i>		
EISCAT Svalbard Radar	731	897		
UHF system	750	880		
VHF system	378	199		
Heating system	96	97		
	<u>1 955</u>	<u>2 072</u>		
Passive hours (receive only)				
Kiruna receiver system	202	151		
Sodankylä receiver system	202	151		
	<u>403</u>	<u>302</u>		

	2019	2018
<i>Accounted hours</i>	<i>Hours</i>	<i>Hours</i>
Common programmes	1 070	1 049
Special programmes	894	986
Other hours	79	167
	<u>2 043</u>	<u>2 202</u>

Distribution of special programme hours between Associates

Associate P. R. of China	85	110
Associate Finland	89	156
Associate Japan	146	174
Associate Norway	168	216
Associate Sweden	221	147
Associate UK	187	184
	<u>894</u>	<u>986</u>

Distribution, other hours

Affiliates	12	57
EISCAT staff and tests	8	4
Per-reviewed campaigns	59	99
Time-buyers	0	8
	<u>79</u>	<u>167</u>

Note 6 Personnel costs and average number of employees

The Association employs directly Headquarters and most project staff, currently about 15 positions, including the Director. Of these, six are on shorter-term project employments. 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), 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	2 037	1 978
Other personnel, employed and provided via site contracts	16 272	14 598
Social security contributions amounted to of which for pension costs	7 469	6 917
	<u>3 451</u>	<u>3 248</u>
Other personnel costs	612	573

The Director, Dr. Craig Heinselmann, started his employment 2013-01-01. His current employment contract ends 2021-12-31.

Of the pension costs, 354 kSEK (312 kSEK) relates to the Director. He 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.

	2019	2018
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Salaries and emoluments and average number of staff per country

Finland		
Salaries and emoluments	706	678
Average number of staff - men and women	1 + 0	1 + 0
Norway (including Svalbard)		
Salaries and emoluments	5 685	5 309
Average number of staff - men and women	8 + 0	9 + 0
Sweden		
Salaries and emoluments	11 919	10 589
Average number of staff - men and women	15 + 2	12 + 2

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)	10 + 4	9 + 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	83 016	78 769
EISCAT_3D financial gains/losses taken in project finances	-4 469	0
Changes to capital operating reserve	-1 375	182
Changes to decommissioning fund	-2 479	-2 446
Changes to E3D construction reserve	-3 176	-3 134
Changes to funds invested	-69 177	-72 047
Changes to spare parts reserve	4	18
Changes to surplus fund	219	590
	<u>2 564</u>	<u>1 933</u>

Note 8 Tangible fixed assets

Changes in tangible fixed assets.

Buildings		
Opening acquisition value	46 021	42 478
Acquisitions during the year	48 707	3 544
Disposals during the year	-152	0
Closing acquisition value	94 576	46 021
Opening accumulated depreciation	-40 963	-40 670
Depreciations during the year	-502	-293
Disposals during the year	152	0
Closing accumulated depreciation	-41 313	-40 963
Closing residual value	53 263	5 059
Radar systems		
Opening acquisition value	337 357	250 760
Acquisitions during the year	28 348	86 597
Disposals during the year	0	0
Closing acquisition value	365 705	337 357
Opening accumulated depreciation	-250 047	-246 480
Depreciations during the year	-7 371	-3 566
Disposals during the year	0	0
Closing accumulated depreciation	-257 417	-250 047
Closing residual value	108 287	87 311

	2019	2018
Equipment and tools		
Opening acquisition value	35 652	34 992
Acquisitions during the year	1 061	687
Disposals during the year	-368	-27
Closing acquisition value	36 345	35 652
Opening accumulated depreciation	-33 391	-32 161
Depreciations during the year	-1 065	-1 257
Disposals during the year	368	27
Closing accumulated depreciation	-34 087	-33 391
Closing residual value	2 258	2 261
Sum tangible fixed assets	163 808	94 631

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 2019 the ENRVI-FAIR project started and AARC2, COOP_Plus and ENRVI_Plus projects ended.

Prepaid rents	9	1
Prepaid insurances	798	698
Accrued income, previous projects	0	2 164
Accrued income, ENRVI-FAIR project	780	0
Accrued income, EOSC-hub project	544	710
Other items	69	118
	<u>2 201</u>	<u>3 691</u>

Note 10 Bank balances status

Nordea	246 678	131 223
Cash in hand	0	0
	<u>246 678</u>	<u>131 223</u>

Note 11 Funds invested status

Buildings	53 263	5 059
Radar Systems	108 287	87 311
Equipment and Tools	2 258	2 261
	<u>163 808</u>	<u>94 631</u>

Note 12 Designated funds

The designated funds are divided into eight funds and reserves. The capital operating and spare parts reserves are used to manage required purchases between years, including unbudgeted ones. The surplus fund is used to manage overall profits and losses between years. The other funds are earmarked for specific purposes.

Capital operating reserve	3 131	1 755
E3D construction reserve	6 309	3 134
Decommissioning fund	4 924	2 446
Equipment repair fund	754	754
Investment fund	7 753	7 753
Restructuring reserve	4 101	4 101
Spare parts reserve	97	101
Surplus fund	11 065	9 351
	<u>38 135</u>	<u>29 395</u>

Note 13 EISCAT_3D build grants received but not used

The construction project, E3DS1, started 2017-09-01 and its first phase, Stage 1, will be completed in 2022. Most Associates have now committed to its realisation. Two E3DS1 specific funding payments were received in 2019. The 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	41 109	0
Received during the year	0	41 109
Used during the year	-20 555	0
Closing balance	20 555	41 109

Associate Norway		
Opening balance	66 381	0
Received during the year	88 280	66 381
Used during the year	-33 191	0
Closing balance	121 470	66 381

Associate Sweden		
Opening balance	67 332	39 980
Received during the year	30 000	50 000
Used during the year	-40 953	-22 648
Closing balance	56 379	67 332

Associate UK		
Opening balance	0	15 455
Received during the year	0	53 787
Used during the year	0	-69 242
Closing balance	0	0

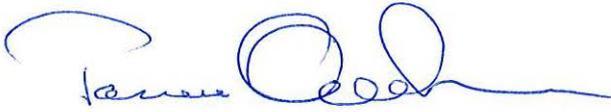
E3DS1 project finances, gains/losses	4 469	0
Sum EISCAT_3D received build grants	202 873	174 823

Note 14 External project grants received but not used

All 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. AARC2 and COOP_Plus were financially concluded during 2019. Prefinancing for ENRVI-FAIR was received.

Previous projects, prefinancing	0	1 167
ENRVI-FAIR H2020 prefinancing	2 777	0
ENRVI_Plus H2020 prefinancing	1 539	1 509
EOSC-hub prefinancing	2 149	1 230
	<u>6 465</u>	<u>3 907</u>

EISCAT, 2020-04-30



Dr. Tomas Andersson

Dr. Mervyn Freeman

Prof. Hiroshi Miyaoka

Prof. Kenneth Ruud

Dr. Kati Sulonen

Prof. Jian Wu



Dr. Craig Heinselman
Director

Our audit report was issued on 2020- *06-18*
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Authorised Public Accountant

EISCAT, 2020-04-30



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EISCAT, 2020-04-30

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Prof. Jian Wu

Handwritten signatures in black ink, including the signature of Prof. Jian Wu and another signature to his right.

Dr. Craig Heinselman
Director

Our audit report was issued on 2020-
Öhrlings PricewaterhouseCoopers AB

Mrs. Annika Wedin
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 2019.

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 2019 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.

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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 our 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 2019. 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.

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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, 18 June 2020

Öhrlings PricewaterhouseCoopers AB

A handwritten signature in blue ink, appearing to read 'Anrika Wedin', is written over a faint, larger version of the signature.

Anrika Wedin
Authorized Accountant