2026 Participant Survey Report:

[2025 scheme year]

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1. Introduction

- The ERNDIM Participant Survey was sent to 828 contacts from 415 centres, on 14th January 2026, and was closed on 11th February 2026. We asked participants to answer questions relating to the 2025 EQA schemes.

2. Summary

- Thank you to everyone who took the time to complete this survey. This report is a summary of all the responses we received. The results from the survey will help us to continue to improve the quality and efficiency of the ERNDIM EQA schemes.
- The survey has again highlighted areas where we need to improve, such as low sample volume for some schemes, and issues with the qualitative schemes' submission website.
- One of the best scoring aspects for ERNDIM EQA scheme was for the 'Frequency of Samples' and 'Usefulness of the annual report'. We are pleased to hear that these reports are helpful, and we are working with the scientific advisors to publish these in a timely manner, and to increase the consistency of detail across different schemes and centres.
- We are pleased that 95.3% of respondents rated the quality of services provided by ERNDIM as 'excellent' or 'good'; with 96.9% of respondents having 'complete' or 'a lot' of confidence that ERNDIM can deliver the service required by participants. We will continue to make further improvements to our services as we work towards applying for accreditation.
- The worst scoring aspects were due to issues with sample volume, in particular with the Congenital Disorders of Glycosylation (CDG) scheme. Schemes that use real clinical samples as the basis of EQA materials are dependent on the Scientific Advisors sourcing suitable clinical samples of sufficient volume either by direct contact with clinicians, or via donations from participating laboratories. Information on the types of samples that would be useful to ERNDIM can be found on the website https://www.erndim.org under EQA schemes\sample donations. Discounts on scheme fees are also available for some schemes if a donated sample is used as an EQA material. If you would be interested in donating a sample, please contact admin@erndim.org for more information.
- The Lipids in Serum (LIS) scheme has now become an official EQA scheme following two successful years as a pilot scheme. We are also investigating the feasibility of other suggested schemes such as lysosomal enzymes in dried blood spots and amino acids in dried urine samples. Future pilots for qualitative schemes are dependent on sample availability. Please contact ERNDIM for further information about donating samples.
- We are especially pleased that so many of you took the time to complete the survey and to send comments on the schemes. We hope you find the summary where we answer some of your comments useful (see page 13) and we would welcome any other comments or suggestions for improvements.

3. Survey Responses

- 138 individuals from 133 centres in 41 countries responded to the survey. The response rate is lower than in the 2024 scheme year survey. The response rate by centre was 32% (compared to 35% in the 2024 scheme year survey).

3.1. Participants were asked to rate aspects of the ERNDIM quality assurance schemes that they are subscribed to:

- The response rate was lower for 10 schemes compared to the 2024 scheme year survey. The biggest decrease was for QTAS (28% for 2025 compared to 36% for the 2024 scheme year).
- The response rate was higher for CWBC than in the 2024 scheme year survey (38% for 2025 compared to 32% for 2024). Similarly, the response rate for LEFB improved (48% for 2025 compared to 44% in 2024).

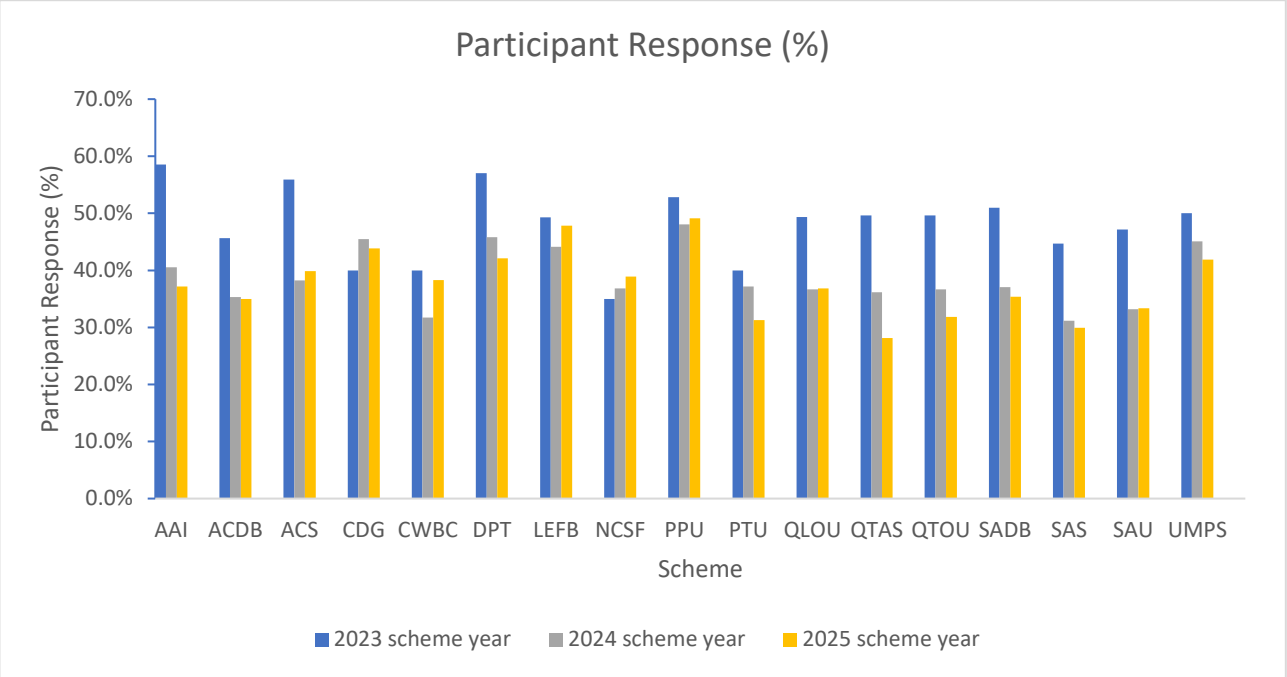


Figure 1. Survey responses per EQA scheme (Question 1) as a percentage of the EQA scheme participants

Key

EQA Scheme	Code	EQA Scheme	Code
Amino Acids Interpretation	AAI	Purines & pyrimidines (urine)	PPU
Acylcarnitines in DBS	ACDB	Pterins in urine	PTU
Acylcarnitines in serum	ACS	Qualitative organic acids (urine)	QLOU
Congenital disorders of glycosylation	CDG	Quantitative amino acids (serum)	QTAS
Cystine in white blood cells	CWBC	Quantitative organic acids (urine)	QTOU
Diagnostic Proficiency Testing (urine)	DPT	Special assays - DBS	SADB
Lipids in Serum Pilot	LIS	Special assays - serum	SAS
Lysosomal enzymes (fibroblasts)	LEFB	Special assays - urine	SAU
Neurotransmitters in CSF	NCSF	Urine Mucopolysaccharides	UMPS

- Participants were asked to rate the following aspects of each scheme:
  - Frequency of samples
  - Appropriateness of analyte concentration
  - Website display
  - Sample volume
  - Adequacy of the report
  - Usefulness of the annual report

- Each of the aspects of individual EQA schemes was rated according to the following scoring system:
  1 = Excellent 2 = Good 3 = Poor 4 = Very poor
- The average scores per scheme since 2012 are shown in Table 1 and Figure 2 and scores ≤ 1.5 are highlighted in blue and scores ≥ 2.0 are highlighted in red.
- The overall score for all aspects of all schemes was 1.7, which is a decrease from the 2024 scheme year (1.6).
- Five EQA schemes had the same score as last year (CWBC, QTAS, QTOU, SAU & UMPS), two schemes had a better score than last year (ACS & LEFB) and 10 schemes had worse scores (AAI, ACDB, CDG, DPT, NCSF, PPU, PTU, QLOU, SADB & SAS). 2025 is the third year that AAI has been a full scheme and had an average score of 1.7. All schemes scored ≤ 1.9.
- The CDG scheme had the lowest score (1.9).
- The average score for individual aspects marginally decreased when compared to the 2024 scheme year (1.6 in 2024 to 1.7 in 2025).
- The worst scoring aspects were ‘Value for Money’ and ‘Sample Volume’ with an average score of 1.8, ‘Website Display’, and ‘Appropriateness of Analyte Concentration’ with an average score of 1.7. The best scoring aspects were ‘Frequency of Samples’ with a score of 1.5 and ‘Adequacy of the Report’ and ‘Usefulness of the Annual Report’ which both scored 1.6.

Table 1. Average scores per scheme (Question 1) *[See Figure 1 for key to scheme codes]*

	Average Scores													
EQA Scheme	**2025**	**2024**	**2023**	**2022**	**2021**	**2020**	**2019**	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**	**2012**
All schemes	**1.7**	**1.6**	**1.7**	**1.7**	**1.7**	**1.7**	**1.7**	**1.8**	**1.7**	**1.7**	**1.7**	**1.8**	**1.7**	**1.7**
AAI	1.7	1.6	1.7	-	-	-	-	-	-	-	-	-	-	-
ACDB	1.7	1.6	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.9	1.9	2.0	1.9
ACS	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	-	-	-	-	-
CDG	1.9	1.8	2.0	1.9	1.8	1.9	1.9	1.9	1.8	1.9	1.9	2.0	2.0	1.9
CWBC	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.6
DPT	1.6	1.5	1.7	1.7	1.6	1.6	1.7	1.8	1.6	1.7	1.7	1.7	1.7	1.7
LIS Pilot	1.7													
LEFB	1.7	1.8	1.8	1.7	1.7	1.8	1.9	1.8	1.7	1.8	1.9	1.9	2.0	1.9
NCSF	1.7	1.6	1.8	1.7	1.6	1.9	1.8	1.8	1.9	1.7	-	-	-	-
PPU	1.6	1.5	1.7	1.7	1.7	1.6	1.7	1.7	1.7	1.7	1.8	1.8	1.7	1.7
PTU	1.7	1.6	1.7	1.7	1.6	1.6	1.5	1.8	1.9	-	-	-	-	-
QLOU	1.7	1.6	1.7	1.7	1.7	1.7	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7
QTAS	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
QTOU	1.6	1.6	1.7	1.7	1.7	1.8	1.7	1.8	1.7	1.7	1.7	1.8	1.7	1.7
SADB	1.7	1.6	1.8	1.8	1.7	1.7	1.8	-	-	-	-	-	-	-
SAS	1.7	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.7	1.7	1.7
SAU	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
UMPS	1.6	1.6	1.8	1.7	1.6	1.7	1.7	1.8	1.7	1.8	1.7	1.8	1.8	1.8

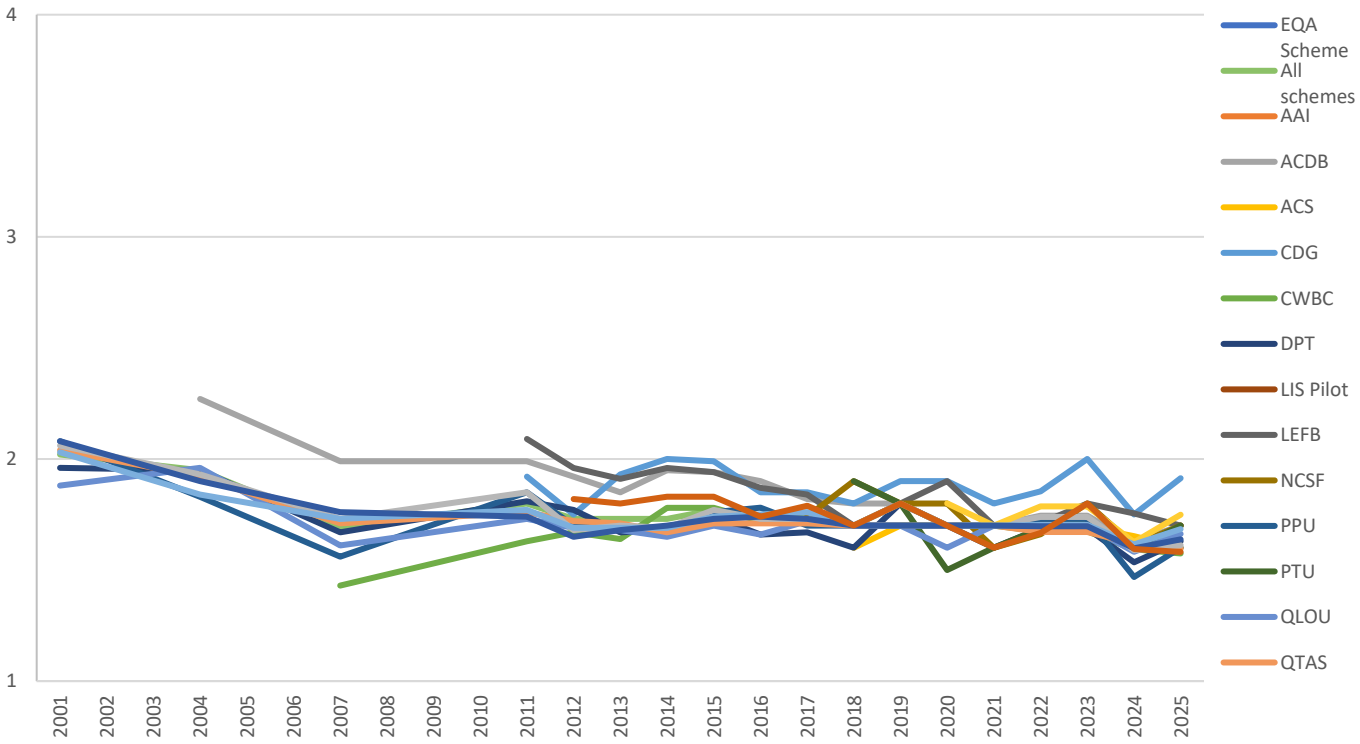


Figure 2. Average score per EQA scheme (Question 1) [See Figure 1 for key to scheme codes]

1 = Excellent 2 = Good 3 = Poor 4 = Very poor

Table 2: Average scores per aspect of each scheme (Question 1) *[See Figure 1 for key to scheme codes]*

EQA Schemes	Adequacy of the report	Appropriateness of analyte concentration	Frequency of samples	Sample volume	Usefulness of the Annual Report	Value for money	Website display	Average per scheme	No. of responses (% of scheme participants)
AAI	1.6	-	1.7	-	1.5	1.8	1.9	1.7	55 (37%)
ACDB	1.6	-	1.6	1.9	1.5	1.7	1.9	1.7	49 (35%)
ACS	1.5	1.6	1.5	1.5	1.5	1.8	1.6	1.6	51 (40%)
CDG	1.6	-	1.5	3.0	1.6	1.9	1.9	1.9	25 (44%)
CWBC	1.5	1.5	1.6	1.7	1.6	1.6	1.6	1.6	16 (43%)
DPT	1.5	-	1.5	1.8	1.4	1.7	1.9	1.6	40 (42%)
LEFB	1.5	1.8	1.4	2.0	1.5	1.7	1.6	1.7	33 (48%)
LIS Pilot	1.6	1.8	1.5	1.8	1.7	-	1.8	1.7	24 (43%)
NCSF	1.8	1.6	1.5	1.8	1.6	1.9	1.8	1.7	14 (39%)
PPU	1.5	1.7	1.4	1.4	1.5	1.8	1.7	1.6	27 (49%)
PTU	1.7	1.6	1.6	1.8	1.7	1.9	1.7	1.7	10 (31%)
QLOU	1.5	-	1.5	1.9	1.5	1.8	1.8	1.7	84 (37%)
QTAS	1.5	1.6	1.5	1.5	1.6	1.8	1.6	1.6	87 (33%)
QTOU	1.6	1.7	1.5	1.6	1.6	1.7	1.6	1.6	43 (32%)
SADB	1.7	1.6	1.7	2.0	1.6	1.9	1.7	1.7	40 (35%)
SAS	1.7	1.7	1.5	1.7	1.7	1.8	1.7	1.7	76 (30%)
SAU	1.6	1.6	1.5	1.8	1.6	1.8	1.6	1.6	65 (33%)
UMPS	1.5	-	1.4	1.8	1.5	1.6	1.7	1.6	36 (42%)
Average for all schemes	**1.6**	**1.7**	**1.5**	**1.8**	**1.6**	**1.8**	**1.7**	**1.7**	134 (32%)

- The 'Sample Volume' score for CDG was again the worst score in the survey, with a score of 3, worse than in the 2024 scheme year (2.5). Sample volume for LEFB and SADB were the next worse scoring aspects (2).
- The best scoring aspect in the survey was the 'Frequency of Samples' for all schemes with an average score of 1.5.

4. Analytes in Quantitative & Hybrid Schemes (Q4 – Q.13)

- A total of 43 individuals (31% of respondents) made suggestions for analytes to be added to or removed from the Quantitative & Hybrid schemes.
- Where possible we do try to incorporate suggestions for additional analytes but unfortunately this is not always possible. A summary of the suggestions for analytes to added or removed, with some responses from ERNDIM, is below.

4.1. Acylcarnitines – Serum (ACS)

Suggested Analytes to be added (4 responses, 8% of ACS respondents)		**Suggested Analytes to be removed**	
Total suggested = 17		Total suggested = 0	
Analytes with >1 responses		**Analytes with > 1 response**	
C14OH	2		
Branched chain ACs	1		

ERNDIM Response:

- No changes are planned for the 2027 scheme year.
- Up to now, C14OH has not been available through standard commercial sources (TRC, Sanbio).
- Branched-chain AC could be included in the future as the number of participants utilising LC methods is increasing but currently, many participants cannot resolve the isomers.

4.2. Lysosomal Enzymes (LEFB)

Suggested Analytes to be added (11 responses, 33% of all LEFB respondents)		**Suggested Analytes to be removed** (5 responses, 18% of all LEFB respondents)	
Total suggested = 20		Total suggested = 3	
Analytes with >1 response		**Analytes with >1 response**	
Arylsulfatase A	3	Aspartylglucosaminidase	4
beta-galactocerebrosidase	3	Hepatan-N-sulphatase	2
alpha-iduronidase	2		
Arylsulfatase B	2		
Hexosaminidase A+B	2		
PPT1	2		
TPP1	2		

ERNDIM Response:

- No changes are planned for the 2027 scheme year.
- Currently only 10 enzymes can be measured in each scheme round, so a selection must be made. There are a core set of 4 enzymes that are included every year, and 6 other enzymes are selected each year.

4.3. Neurotransmitters – CSF (NCSF)

Suggested Analytes to be added (1 response, 7% of NCSF respondents)	**Suggested Analytes to be removed** (1 response, 7% of all NCSF respondents
Total suggested = 2	Total suggested = 1
Analytes with >1 response	**Analytes with >1 response**

ERNDIM Response:

- No analyte had more than 1 request for addition or removal, which is not sufficient for requests for changes to be implemented.

4.4. Purines & Pyrimidines – Urine (PPU)

Suggested Analytes to be added (3 responses, 11% of all PPU respondents)		**Suggested Analytes to be removed** (1 response, 4% of all PPU respondents)	
Total suggested = 9		Total suggested = 1	
Analytes with ≥ 1 response		**Analytes with > 1 response**	
2,8-Dihydroxyadenine	2		
3-ureidoaspartic acid	1		
Dihydroorotic acid	1		

ERNDIM Response:

- The inclusion of 2,8-Dihydroxyadenine is chemically not possible.
- The feasibility of adding 3-ureidoaspartic acid and Dihydroorotic acid to PPU samples in 2027 will be investigated.

4.5. Pterins – Urine (PTU)

Suggested Analytes to be added (1 response, 10% of all PTU respondents)	**Suggested Analytes to be removed** (0 response, 0% of all PTU respondents)
Total suggested = 6	Total suggested = 0
Analytes with > 1 response	**No Analytes Suggested**

ERNDIM Response:

- No analyte had more than 1 request for addition or removal, which is not sufficient for requests for changes to be implemented.

4.6. Quantitative Amino Acids (QTAS)

Suggested Analytes to be added (14 responses, 16% of all QTAS respondents)		**Suggested Analytes to be removed** (7 responses, 8% of all QTAS respondents)	
Total suggested = 24		Total suggested = 4	
Analytes with >3 response		**Analytes with >3 response**	
homo-citrulline	5	sarcosine	3
homocystine	5	Sulfocysteine	3

ERNDIM Response:

- Homocitrulline was requested by 5 participants. This has previously been in the scheme however, following participants request, it was removed. Inclusion for 2027 is being discussed.
- Homocysteine was requested by 5 participants; however, it lacks the stability to be included.
- Too few participants have requested removal of any analytes. In particular, sulphocystine would not be removed as it is considered to be a key diagnostic metabolite.

4.7. Quantitative Organic Acids (QTOU)

Suggested Analytes to be added (8 responses, 19% of all QTOU respondents)		**Suggested Analytes to be removed** (1 response, 2% of all QTOU respondents)	
Total suggested = 19		Total suggested = 1	
Analytes with >2 responses		**Analytes with >1 response**	
Succinic acid	3		

ERNDIM Response:

- No relevant proposition for adding or removing compounds.

4.8. Special Assays – Dried Blood Spots (SADB)

Suggested Analytes to be added (11 responses, 28% of all SADB respondents)		**Suggested Analytes to be removed**	
Total suggested = 22		Total suggested = 0	
Analytes with >2 response		**No Analytes Suggested**	
Acylcarnitines	3		
methylmalonic acid (MMA)	3		

ERNDIM Response:

- SADB contains many unrelated analytes which are analysed using several different assays. This makes assessing the scheme results and writing the annual report difficult. Therefore, there are no proposed changes to the analyte list for the 2027 scheme year.
- We are investigating the feasibility of a new pilot scheme that offer quantitative acylcarnitines in dried blood spots.

4.9. Special Assays – Serum (SAS)

Suggested Analytes to be added (7 responses, 9% of all SAS respondents)		**Suggested Analytes to be removed** (3 responses, 4% of all SAS respondents)	
Total suggested = 9		Total suggested = 3	
Analytes with >1 response		**Analytes with >1 response**	
NTBC (nitisone)	2	7 dehydrocholesterol	2
		Cholestanol	2

ERNDIM Response:

- Participants were previously asked if adding NTBC (Nitisone) to the SAS scheme would be of interest and only 13% of participants surveyed agreed which is not sufficient for requests for changes to be implemented.
- 7 dehydrocholesterol and cholestanol is currently included in both schemes for specific reasons. Retaining 7 DHC within SAS ensures that laboratories which only measure 7 DHC are not required to enrol in the LIS scheme solely for a single analyte.

4.10. Special Assays – Urine (SAU)

Suggested Analytes to be added (12 responses, 18% of all SAU respondents)		**Suggested Analytes to be removed** (1 response, 2% of all SAU respondents)	
Total suggested = 17		Total suggested = 2	
Analytes with >2 response		**Analytes with >2 response**	
Glucose tetrasaccharide (GLC4)	2		

ERNDIM Response:

- Due to the broad range of analytes already present in the SAU scheme, unfortunately it is not financially feasible to add additional analytes for 2027.

4.11. Lipids in Serum (LIS)

Suggested Analytes to be added (8 responses, 33% of all LIS respondents)	**Suggested Analytes to be removed** (0 response, 0% of all LIS respondents)
Total suggested = 10	Total suggested = 2
Analytes with >2 response	**Analytes with >2 response**

ERNDIM Response:

- No analyte had more than 2 requests for addition or removal which is not sufficient for requests for changes to be implemented.

5. Special Questions

5.1. Does your laboratory use any of the Internal Control Materials provided by MCA laboratories?

- 127/138 (92%) respondents answered this question.

Response	Number of respondents
Yes	64 (50.4%)
No	44 (34.6%)
No, but we may use these in the future	19 (15%)

5.2. Control materials are currently available to complement a number of ERNDIM schemes, would your laboratory like control materials to be produced to complement any other ERNDIM Quantitative or Hybrid schemes?

- 22/138 (16%) respondents answered this question, several of these responses are included below:
  - A lipids in serum kit (n=4)
  - Special Assays for Dried Blood Spots (SADB) (n=3)
  - Lipids in DBS (n=2)
  - CDG (n=1)
  - Neurotransmitters in CSF (n=1)
  - Methylmalonic acid (n=1)

5.3. Potential sample exchange programmes

Unfortunately, it's not possible for ERNDIM to provide EQA schemes for all analytes requested by participants. ERNDIM can however support laboratories looking to set up sample exchanges by helping identify other laboratories with the same needs.

There were 13 suggestions from this survey for sample exchange programmes, and these have been sent to the Scientific Advisory Board for discussion.

5.4. Metabolomics

ERNDIM has an interest in the introduction of Untargeted Metabolomics in a diagnostic setting. While there are currently no immediate plans for an ERNDIM Untargeted Metabolomics EQA pilot scheme we are periodically reviewing the level of interest expressed by our participants. We would therefore appreciate your response to the following questions.

5.4.1. Is your laboratory currently providing an Untargeted Metabolomics test for diagnostic purposes?

- 123/138 (89.1%) respondents answered this question.

Response	Number of respondents
No, we do not have Untargeted Metabolomics in use or in development	105 (85.4%)
We are currently developing an Untargeted Metabolomics test for diagnostic use	9 (7.3%)
We have Untargeted Metabolomics available but for research use only	5 (4.1%)
Yes, we offer a diagnostic Untargeted Metabolomics test	4 (3.3%)

5.4.2. Would your laboratory be interested in participating in an Untargeted Metabolomics pilot scheme?

- 121/138 (87.7%) respondents answered this question.

Response	Number of respondents
No	59 (48.8%)
Not yet, perhaps in 5 or more years	24 (19.8%)
Not yet, perhaps in 2 or more years	26 (21.5%)
Yes	12 (9.9%)

5.4.3. If you are interested in participating in an Untargeted Metabolomics pilot scheme, what sample type would be of most interest to you?

- 36/138 (26%) respondents answered this question.

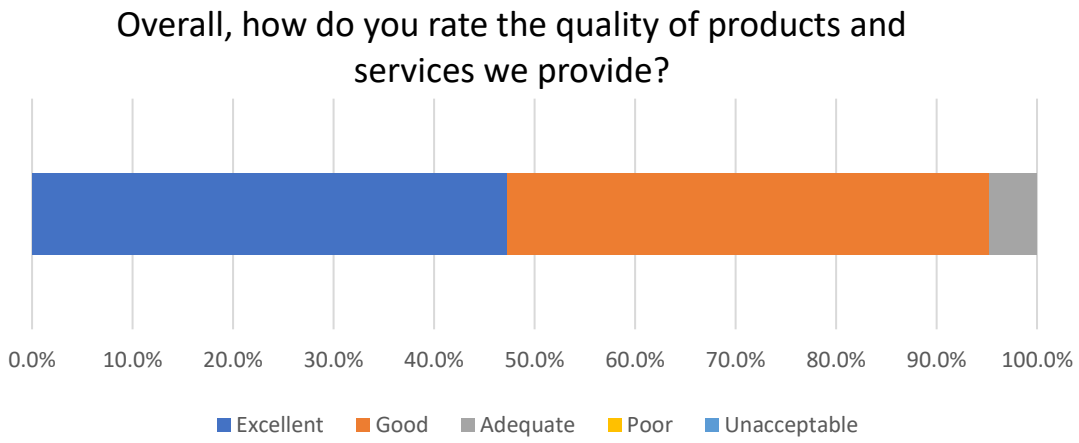
Response	Number of respondents
Urine	14 (38.9%)
DBS	2 (5.6%)
DBS and Serum/Plasma	1 (2.8%)
Urine and Plasma	3 (8.3%)
Plasma	15 (41.7%)
CSF	1 (2.8%)

6. Comments on the overall performance of ERNDIM

- The aim of this section is to assess participants' perception of the overall performance of ERNDIM.
- In summary:
  - 95.3% of respondents rated the quality of services provided by ERNDIM as 'excellent' or 'good'; with 96.9% of respondents having 'complete' or 'a lot' of confidence that ERNDIM can deliver the service required by participants.
  - 67.7% of respondents agreed that overall ERNDIM's performance is 'getting better' or 'getting much better'; with 97.7% of respondents stating that it was 'certain' or 'very likely' that they would use ERNDIM services in the future.

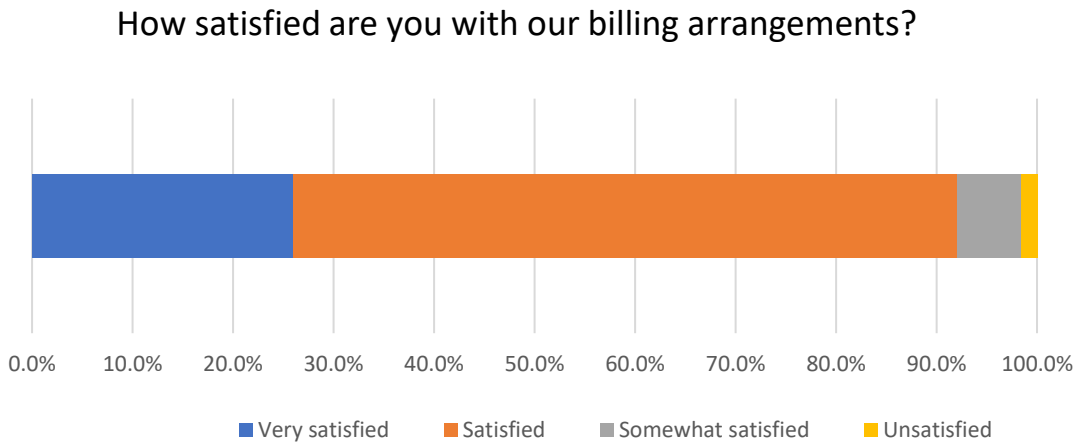
6.1. Overall, how do you rate the quality of products and services we provide?

(127 responses, 92% of responders for this section)



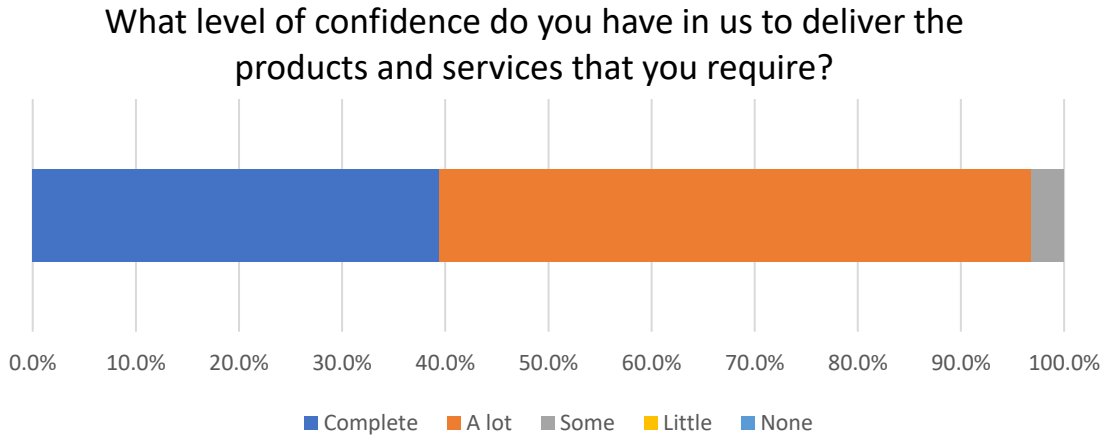
6.2. How satisfied are you with our billing arrangements?

(127 responses, 92% of responders for this section).



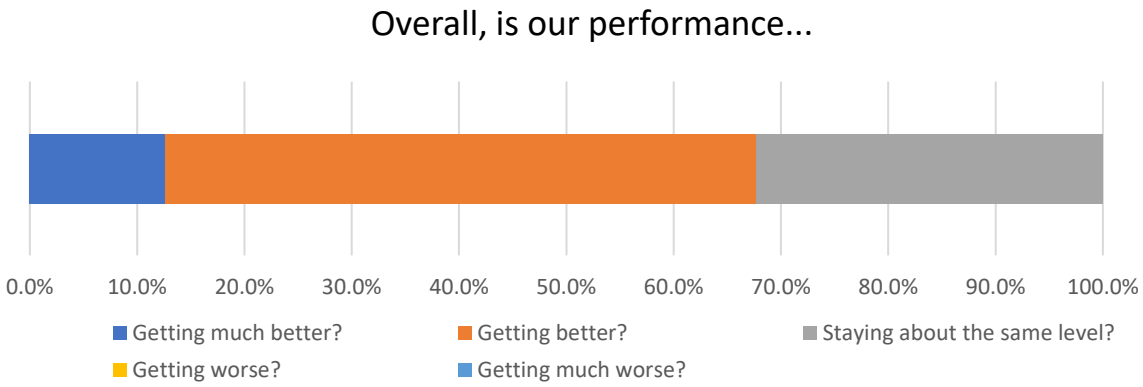
6.3. What level of confidence do you have in us to deliver the products and services that you require?

(127 responses, 92% of responders for this section)



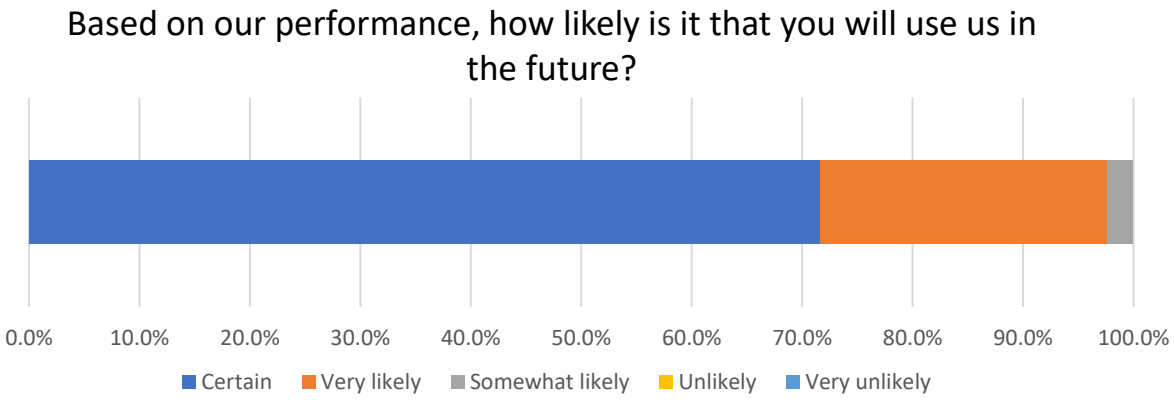
6.4. Overall, is our performance…

(127 responses, 92% of responders for this section)



6.5. Based on our performance, how likely is it that you will use us in the future?

(127 responses, 92% of responders for this section)



7. Summary of Remarks, comments or suggestions for improvements.

- We received a total of 59 comments from 38 respondents that answered one or both questions asking for scheme related remarks, comments, or overall suggestions for improvements.
- We have selected a number of these comments to respond to below.

Participant Comment	ERNDIM Response
Administration	
• Is it possible to avoid the annual sign-up, and just be registered indefinitely?	• Annual registration ensures that participants actively confirm their intention to take part in the programme for the coming cycle. Laboratories may close, merge, change scope, or decide not to participate, and automatic enrolment could result in incorrect or unwanted participation. Furthermore, re-registration ensures participants review the current list of analytes, confirm which schemes they wish to receive samples for, and avoid being enrolled for analytes they no longer perform—or missing new analytes that are now available.
• Please do not send samples via FedEx; always delivered to wrong address (although your address is correct), unpredictable delivery, gets stuck at customs.	• Please inform the ERNDIM administrative office during registration if you have a preference for which courier should be used. • Participants are encouraged to ensure that all required import or customs documentation specific to their country is obtained and in place. Incomplete, incorrect, or missing customs paperwork may result in delays, customs hold, or refusal of entry, which can directly impact delivery times.
• ISO17043 accreditation.	• We are working towards applying for accreditation, but this is quite complex due to the variety of schemes that we offer. We appreciate your patience on this matter.
EQA Schemes	
General Quantitative Scheme Comments	
• Why is it only 8 months of the year? most other schemes run a full year as do our samples. • Ideally distributions would cover a larger portion of the year (we appreciate the current logistical reasons that would make this difficult but feel it should be periodically reconsidered). • Could you please modify the results release schedule for the year? No results are provided between the end of October and March of the following year. • I wish there was only 4 samples well distributed across the year rather than 8 samples in 8 months. • Please could the distributions be evenly spaced across the year.	• We have investigated options for extending the submission calendar but, due to operational issues (such as sample distribution, scheme scoring, generating annual reports and sending performance support letters) this is not something that we can currently implement. However, we will look at this again in the future. • For the quantitative schemes, results from at least 6 result submissions are required to properly assess participants performance in accuracy, precision, linearity and recovery of analytes.

Participant Comment	ERNDIM Response
• Possibility of exporting quantitative schemes results as xls file for statistical use would be very useful • For evaluation of participation results it would be an advantage to be able to download the analyte in detail results in an excel file.	• This functionality has now been updated, and participants are able to download the Cycle review, Analyte in detail and the Annual report as an XLS file. • We are always looking to improve our services where possible. If you have any suggestions, please email us at admin@erndim.org and we will try to accommodate where possible. • For the latest updates to the MCA results website, please see our Spring 2026 Newsletter here: https://www.erndim.org/newsletters/.
• The website should be updated, and the reports should give more information's. • The website could be more intuitive, and the way results are presented could be clearer and easier to interpret.	• We are sorry participants are having problems with the results website for the quantitative schemes. We are continuing to work with the scheme organiser on improving this but if you have any questions or specific suggestions for improvements, please contact admin@erndim.org.
• Possibility of reporting results as "<LLOQ" would avoid irrelevant statistical exploitation of very low concentration results.	• Results that are unrepresentatively low are managed through established outlier detection and removal procedures, ensuring they do not exert inappropriate influence on the overall statistical analysis. In addition, the scheme's software currently permits the submission of numerical values only for quantitative results and therefore does not support the reporting of results as "<LLOQ".
• The improvement of the reports would be helpful, so it can be easier to read. An annual report calculating the measure uncertainty is needed.	• We recognise the importance of clear and accessible reporting and are actively reviewing the format and layout of the reports to improve readability and usability for participants. • With regard to measurement uncertainty, the assessment of analytical uncertainty is already supported within the scheme through the statistical evaluation of EQA data across the distribution cycle.
• It would be beneficial to expand the range of available control materials, i.e. to include additional analytes.	• The range of analytes in quality comparison material sold by MCA is aligned with the analytes included in the ERNDIM EQA schemes. Selection is guided by their usefulness to participants, stability, and the potential for interference with other analytes, as well as requests from participants. Should you have specific analytes you would like us to consider, please contact admin@erndim.org.
• It would be useful to know which internal standards are used for which analyte by the different laboratories and whether correction factors are applied. If so, which reference samples are used?	• The EQA scheme is designed to assess performance across laboratories rather than to collect or compare detailed, laboratory-specific internal calibration practices. The choice of internal standards, use of correction factors, and selection of reference or calibrator materials are method- and laboratory-dependent and may vary even within the same peer group. In addition, such information is often commercially sensitive or specific to local validation processes and is therefore not routinely captured or reported within the scheme.

Participant Comment	ERNDIM Response
• It would be helpful to populate Method Sets with the previous year's setup, that would save us time.	• Method Set details can change from year to year as a result of updates to instrumentation, reagents, calibration approaches, internal standards, analytes performed, or laboratory practices. Automatically carrying forward a previous configuration risks retaining outdated or incorrect information. Annual manual confirmation of Method Sets ensures that participants actively review and verify their current setup, supporting data accuracy, compliance with accreditation requirements, and the integrity of the scheme's outputs. This approach helps minimise errors that might otherwise go unnoticed if historical configurations were reused without review. • However, we acknowledge the administrative effort involved and will discuss with MCA the feasibility of this suggestion.
• Website for quantitative schemes is still extremely slow - is it possible to be able to import data rather than manually enter?	• At present, importing results data directly is not possible due to technical and data-integrity constraints within the current system. Quantitative EQA data submission requires multiple validation checks at the point of entry (such as format, units, analyte selection, method set linkage, and consistency controls) to ensure results are correctly aligned with the scheme structure and statistical analysis. Automated data import would require a high degree of standardisation across laboratory information systems, result formats, units, and decimal conventions, which is not currently achievable without introducing a significant risk of data mis-mapping or submission errors. • In addition, laboratories often use different reporting conventions, rounding rules, and result qualifiers, which would require extensive customisation and validation logic to manage safely via file upload. Manual entry, while more time-consuming, allows participants to review and confirm each result at submission, supporting data accuracy. • We acknowledge that performance and usability are important, and system responsiveness is kept under review as part of ongoing platform maintenance and improvement planning. Feedback such as this is logged and considered as part of future development discussions, balancing usability improvements with data quality, validation, and patient-safety considerations.

Participant Comment	ERNDIM Response
General Qualitative Scheme Comments	
• Please replace the CSCQ website. We know it's not that simple, but it really is frustrating entering results at times	• We fully appreciate how frustrating the current website experience can be, particularly when entering results. CSCQ is actively in the process of updating and modernising the software platform for participants, with a focus on improving system performance, usability, and overall user experience. This is a significant undertaking, as the system must continue to meet strict data validation, security, and quality-assurance requirements while supporting a wide range of quantitative schemes; however, we hope this will be available for participants in 2027. • Although replacing the system is not straightforward, these updates are part of ERNDIMs ongoing commitment to continuous improvement, and participant feedback such as this directly informs development priorities. We thank participants for their patience while this work progresses.
• Is there currently a mechanism to identify when reports for the qualitative schemes are available? We get and email when reports for the quantitative schemes are ready - would it be possible to do the same for the qualitative scheme reports please?	• Currently, participants are emailed when Qualitative scheme reports are made available. This email generally goes to the Primary contact. If you or a member of your lab is not receiving this notification, please contact admin@erndim.org.
• Please add detailed clinical information for Cystine in white blood cells (CWBC), Qualitative organic acids (urine) (QLOU) and Neurotransmitters in CSF (NCSF) schemes.	• We aim to strike an appropriate balance between clinical relevance and the educational and assessment objectives of each scheme. • For some schemes, the clinical information is designed to closely reflect real-life diagnostic scenarios and therefore may include more detailed contextual information. For other schemes, however, the disorders being assessed have well-recognised pathognomonic clinical features, where providing detailed clinical information would effectively identify the diagnosis.
• Unclear why clinical details for interpretative schemes are only released near the distribution submission date	• Clinical details for interpretative schemes are released closer to the distribution submission date to encourage laboratories to analyse samples throughout the year as part of routine practice, rather than holding and batch-analysing them once full case details are known. Furthermore, interpretative schemes should mimic real life clinical testing, and therefore receiving clinical information only during the submission window would better reflect this.

Participant Comment	ERNDIM Response
Amino Acids Interpretation (AAI)	
• The AAI scheme often doesn't have enough information to make a diagnosis. We often comment that we would want more clinical details and further investigations before suggesting a possible diagnosis.	• We recognise that, in routine clinical practice, a definitive diagnosis often requires comprehensive clinical information and the results of additional investigations. • The AAI scheme is intentionally designed to reflect this reality and to assess interpretative practice rather than diagnostic certainty. Scenarios may therefore include limited or evolving clinical information, with the expectation that participants will comment on appropriate differential diagnoses, limitations of the available data, and the need for further clinical details or investigations where relevant.
Acylcarnitines in Dried Blood Spots (ACDB)	
• In the ACDB scheme, a submission field for selected diagnostic ratios would be also important.	• We understand that the CSCQ reporting software provides a unit by default however, the Scientific Advisors encourage participants to enter all relevant parameters – i.e., both concentrations and ratios – into the submission field table, regardless of the unit which is given by default. We are also in the process of updating the reporting software and hope to have changes in place for 2027.
Congenital Disorders in Glycosylation (CDG)	
• I would like to request to have increase the volume of the sample for CDG. • The main problem with the CDG scheme is sample volume. I do realise these are actual patient samples so the volumes available, especially, from children, will be low. I am aware there are adults with CDG type I syndromes (and the phenotypic variants) who could potentially be approached as donors and would probably be available to provide sufficient material but again, I realise this may not be the easiest thing to achieve. What we are having to do for the neuraminidase digests is to dissolve neuraminidase directly into the sample and to achieve the digestion, which is not always successful. Usually, all have to be run in further dilution to get the minimum volume required for the analyser.	• Additional sets of samples are available for purchase at a discounted rate for participants requiring a larger volume for their method. However, the volume of sample is limited by the availability of patient sample material. If you would like to donate a sample, particularly of adults with CDG type I syndromes, please contact admin@erndim.org. • However, we understand that the limited sample volume may present challenges for some analytical methods. The Scientific Advisor for CDG has therefore offered the following advice: Several laboratories using capillary electrophoresis and facing similar constraints successfully use appropriate conical-bottom microtubes placed inside the primary tube, which help facilitate the analysis of small volumes. We also recommend contacting the manufacturer to explore possible solutions for working with short sample volumes. We hope this approach may allow your continued participation. If sample volume issues related to your method persist, please contact admin@erndim.org for further advice from the Scientific Advisor.
• The site to enter or retrieve results is often slow - Site not practical for entering CDG	• We are sorry you are having difficulties with the CDG results website. We are continuing to work with the scheme organiser on improving this but if you have any specific suggestions for improvements, please contact admin@erndim.org.

Participant Comment	ERNDIM Response
Diagnostic Proficiency Testing (DPT)	
• I gave low marks for the DPT survey as results are very delayed.	• We apologise for the delay in circulating results of several qualitative scheme results in 2025. For 2026 we have implemented a new scoring platform for scientific advisors which we hope will expedite the reporting process.
Lysosomal Enzymes in Fibroblasts (LEFB)	
• Lyso enzymes in fibroblasts - appreciate difficult to get samples, but more samples per year would be better due to the wide range of enzymes covered. • We would like there to be more events per year.	• We have investigated options for extending the submission calendar but, due to operational issues this is not something that we can currently implement. However, we will look at this again in the future. • There are ongoing discussions about launching a second LEFB scheme which would allow labs to test additional enzymes.
Purines and Pyrimidines (PPU)	
• Analyte concentrations should better reflect the diagnostic decision points - many are much too high, often well above our calibration curve limit.	• Quantitative scheme samples are deliberately designed to include a broad range of analyte concentrations, including higher values, in order to fully assess a laboratory's analytical performance.

Participant Comment	ERNDIM Response
Special Assays in Serum (SAS) / Urine (SAU)	
• Need Biotinidase at different levels, not the same level each sample. • NEFA and Biotinidase: more than one level of concentration/activity if possible. • The concentration of FFA/NEFA is almost exactly the same throughout the whole year, this is not very useful for us, we would like to see more variation in concentration (high/low).	• It is currently not possible to include biotinidase at different concentrations as there is no commercially available analyte so it cannot be added. However, it is included as a measurable analyte due to its presence in the sample matrix. • The inclusion of NEFA at different concentrations is currently under consideration for the 2027 scheme year.
Lipids in Serum pilot (LIS)	
• 7-dehydrocholesterol should be contained in only one scheme	• 7-dehydrocholesterol (7-DHC) is currently included in both schemes for specific reasons. Retaining 7-DHC within SAS ensures that laboratories which only measure 7-DHC are not required to enrol in the LIS scheme solely for a single analyte. In addition, evaluation of the LIS pilot identified that some laboratories experience difficulty differentiating between 7-DHC and desmosterol. Maintaining 7-DHC within LIS therefore provides educational value for more specialised laboratories. The inclusion of all analytes is formally reviewed at the end of each scheme year by the scientific advisory board based on scheme performance and participant feedback.
Suggestions for Future Schemes	
• Proposal for new schemes: a qualitative acylcarnitine scheme or an acylcarnitine interpretation scheme.	• Thank you for this suggestion. The ERNDIM Scientific advisory board continually discuss the feasibility of additional interpretive and/or qualitative schemes.
• A wider CSF scheme, not just for neurotransmitters, i.e. for amino acids and lactate.	• ERNDIM and MCA are currently investigating the feasibility of launching either amino acids in CSF as quality comparison materials or as a full EQA scheme.
• Lysosomal Enzymes in Dried Blood Spots. • Please could you introduce a bloodspot enzyme scheme to include galactose-1-phosphate uridyltransferase, alpha-galactosidase, dihydropteridine reductase, alpha-glucosidase, lysosomal acid lipase. • It would be good to include a scheme for the diagnosis of lysosomal diseases in DBS.	• There has been a short Lysosomal Enzymes in DBS pilot scheme in the past, but it was not possible to continue it due to limited sample availability at that time. However, discussions on whether this could be reintroduced are in progress.

7.1. Positive Feedback

- Many thanks for all your hard work
- Thank you to ERNDIM and the organisers for continuing this 1 service, it is critical to the work we do and massively appreciated.
- Overall experience was 1 over the years. :)
- Thank you for your efforts!
- Generally, very happy with the service thanks.
- Overall, the service works well.
- Thank you.

END