

From: "5.1.2.e" <5.1.2.e@tno.nl>
Sent: Fri, 6 Mar 2026 12:42:59 +0100
To: "5.1.2.e" <5.1.2.e@cbs.nl>; "5.1.2.e" <5.1.2.e@cbs.nl>
Cc: "5.1.2.e" <5.1.2.e@cbs.nl>; "5.1.2.e" <5.1.2.e@tno.nl>
Subject: Re: Follow-up manure transport data working session CBS/TNO/FUB

[Externe email]

Dear 5.1.2.e and 5.1.2.e

I wanted to check in to see if you have everything you need from our side or if there is anything I can help with at the moment.

Best,
Carolina

From: 5.1.2.e <5.1.2.e@tno.nl>
Sent: Monday, February 23, 2026 12:10 PM
To: 5.1.2.e <5.1.2.e@cbs.nl>; 5.1.2.e <5.1.2.e@cbs.nl>
Cc: 5.1.2.e <5.1.2.e@cbs.nl>; 5.1.2.e <5.1.2.e@tno.nl>
Subject: Re: Follow-up manure transport data working session CBS/TNO/FUB

Dear 5.1.2.e and 5.1.2.e

Both orders have been confirmed. If you are preparing the invoices, please include the following Purchase Order (PO) numbers in your invoices.

Invoice 1: CBS Manure Transport Data (2021–2024)

- **PO number:** 3100564720
- **Amount:** 2744 Euro

Invoice 2: Analysis and Enrichment of Agricultural Census & Manure Transport Data

- **PO number:** 3100564719
- **Amount:** 8040 Euro

Required invoicing details

Please address both invoices to:

TNO – Attn. Accounts Payable

P.O. Box 96892
2509 JE The Hague
The Netherlands

And please send each invoice as a **single PDF** (with attachments combined into one PDF) to:

E-invoice@tno.nl

If any clarification is needed, feel free to reach out.

Kind regards,

From: [redacted] <[redacted]> @tno.nl>

Sent: Friday, February 20, 2026 1:52 PM

To: [redacted] <[redacted]> @cbs.nl>

Cc: [redacted] <[redacted]> @cbs.nl>; [redacted] <[redacted]> @tno.nl>; [redacted] <[redacted]> @cbs.nl>

Subject: Re: Follow-up manure transport data working session CBS/TNO/FUB

Dear [redacted],

Thank you for your detailed proposal. We are happy with the suggested approach and budgets, so we can proceed.

I've now submitted the internal purchase request on our side. The order is currently awaiting approval. I've also listed [redacted] as the contact person, so she may directly receive the order, including the official order number which ideally is listed on your invoice, once it has been approved.

I will keep you updated as soon as there is progress.

Please let me know if you have any questions in the meantime.

Kind regards,

[redacted]

From: [redacted] <[redacted]> @cbs.nl>

Sent: Friday, February 13, 2026 1:28 PM

To: [redacted] <[redacted]> @tno.nl>

Cc: [redacted] <[redacted]> @cbs.nl>; [redacted] <[redacted]> @tno.nl>; [redacted] <[redacted]> @cbs.nl>

Subject: RE: Follow-up manure transport data working session CBS/TNO/FUB

Dear [redacted]

Yes, it was a very interesting meeting on Friday, January 30th. I promised to respond within two weeks.

Thank you for sending the slides. The contents of the last slide are below, including my comments (in green) on what Statistics Netherlands can do. I would appreciate feedback and confirmation of the budgets (2 744 euro and 8 040 euro). Once we reach an agreement, I will forward it to my colleague responsible for financial administration ([redacted]; in cc).

Best regards,

[redacted] [redacted]

Statistics Netherlands

We would like to get all regions (2021-24). Separation in manure type possible? 2020 available?

[redacted] can provide the original data from 2021-2023 and the new data from 2024, broken down by agricultural region and manure type (in accordance with Tabel 11 Normen en mestcodes aanvoer en afvoer (dierlijke) mest). On January 30th, we decided that aggregating the 'manure codes' is unnecessary. TNO can do this. However, if it is easy to do, [redacted] can provide two columns:
1) not aggregated;

2) aggregated to, for example, Cattle/pig/poultry/other x liquid/solid.

Similarly, if it is easy to do, [redacted] can also provide the 2020 data. However, on January 30th, we assumed that the 2020-data were simply not available (in a suitable format).

Hours needed (including already spent) x hourly tariff

4 hours (mine) x 150 euro/hour + 16 hours ([redacted]) x 134 euro/hour = 2 744 euro

Expected transmission of the data: late February/early March.

a. Is there info from the receiving farm in the transport data and their main crop?

b. Is it possible to split census data for cereals into (spring/winter) wheat, (spring/winter) barley, (spring/winter) rye, (spring/winter) oats, consumption maize, triticale, durum wheat and other cereals? Is fodder crops actually maize (which percentage?) Fodder maize, cereal/leguminous fodder crops? Separate permanent from temporary grassland.

On January 30th, we discussed several options for addressing this. The first step is to focus on the different farm types (request a). My initial analysis can be found in the attached Excel file. It's in Dutch, but it also refers to data tables in English. My analysis results in 10 different farm types:

1. Specialist field crops, mainly potatoes
2. Specialist field crops, mainly wheat (or 'specialist field crops, mainly cereals)
3. Specialist field crops, mainly sugar beets
4. Specialist field crops, mainly onions (or 'specialist field crops, mainly arable vegetables)
5. Specialist field crops, other
1. Specialist grazing livestock, mainly grassland

2.2 Specialist grazing livestock, mainly maize

2.3 Specialist grazing livestock, other

3.1 Other farm types, mainly horticulture

3.2 Other farm types, other

It's an iterative process to arrive at the final classification of farm types. First, [5.1.2.e] must perform various calculations with the Agricultural Census (several histograms) and, second, similar calculations with the manure transport data. It's difficult to describe this iterative process (which could also involve TNO by presenting preliminary results), but the ultimate goal is to obtain the most optimal farm type classification in order to enrich the manure transport data by adding column a column with farm types.

The second step is to enrich the manure transport data by adding crop areas (request b). This is quite simple, but this is an iterative process too. What level of detail is required here? It could even lead to (small) changes in the farm type classification.

Estimated hours needed x hourly tariff

60 hours ([5.1.2.e]) x 134 euro/hour = 8 040 euro

We will register these hours and can do the billing based on this, with a maximum of 8 040 euro.

Expected transmission of the data: late March/early May

Van: [5.1.2.e] <[5.1.2.e]> @tno.nl>

Verzonden: vrijdag 6 februari 2026 12:57

Aan: [5.1.2.e] <[5.1.2.e]> @cbs.nl>

CC: [5.1.2.e] <[5.1.2.e]> @cbs.nl>; [5.1.2.e] <[5.1.2.e]> @tno.nl>

Onderwerp: Follow-up manure transport data working session CBS/TNO/FUB

[Externe email]

Dear [5.1.2.e]

Thank you once again for meeting with us last week to discuss the manure transport data.

Attached you will find the presentation we shared during the session including our data requests.

Could you please provide your proposal for the contract, including the estimated number of hours and the scope of work? Please also factor in time for discussions between TNO and CBS.

If possible, I would appreciate it if you could also share a tentative timeline indicating when you expect you could deliver the first data. In addition, please feel free to propose dates for a follow-up meeting.

Should you have any questions, please do let me know.

Kind regards,

[5.1.2.e]

5.1.2.e (5.1.2.e)
Project 5.1.2.e
Energy & Materials Transition

T: 5.1.2.e
M: 5.1.2.e @tno.nl

[Location](#)



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