



Rijkswaterstaat
Ministerie van Infrastructuur en Waterstaat

RWS INFORMATIE

Marktconsultatiedocument

Innovatiepartnerschap Biobased Geluidschermen (IPBG)

ENGLISH VERSION

Uitgegeven door	Inkoop- en Contractmanagement, GPO, Rijkswaterstaat
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Datum	13-04-2026
Versienummer	1.0
Status	definitief

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1 Introduction

1.1 About Rijkswaterstaat

Rijkswaterstaat is the executive agency of the Ministry of Infrastructure and Water Management. We manage and develop the national roads, waterways and waters and are committed to a sustainable living environment.

Together with others, we work on a country that is protected against flooding, that has sufficient green space and sufficient, clean water, and where you can travel quickly and safely from A to B.

Working together on a safe, livable and accessible Netherlands. That is Rijkswaterstaat.

1.2 Background

The 'Nationale Aanpak Biobased Bouwen (NABB)' aims to scale up the use of biobased materials in the construction and infrastructure sectors. Building Balance implements the NABB on behalf of the ministries of LNV, BZK and EZK. One of the objectives of the NABB is that at least 10% of the newly delivered infill area (or panels) for sound-absorbing noise barriers in the Netherlands in 2030 is biobased.

Several public authorities have joined forces and jointly formulated a procurement assignment. With this assignment, this so-called coalition of contracting authorities aims to stimulate and scale up the use of biobased materials for infill in noise barriers.

Rijkswaterstaat acts on behalf of the coalition of contracting authorities as the contracting authority and intends to launch a European procedure for an Innovation Partnership for this assignment¹. An innovation partnership is a procurement procedure aimed at developing a product together with the market to a level at which it meets the requirements of a contracting authority, so that it can then be purchased directly.

1.3 Previous market exploration

Building Balance conducted market research in the Dutch market in 2024 and 2025. The research consisted of desk research, multiple sessions with market parties in so-called learning environments, talks with companies and a market event. This showed that the biobased solutions for infill for noise barriers available in the Dutch market still do not meet the procurement needs of the coalition in several respects and that, for the intended scaling up, an intensive validation process still has to be completed.

With this market consultation, the contracting authority further extends the market research to the European market, in order to determine that the product is not available and thereby to be able to start a European procedure for the innovation partnership.

¹ <https://www.pianoo.nl/nl/inkoopproces/aanbestedingsprocedures/innovatiepartnerschap>

1.4 Objective of the market consultation

The purpose of this market consultation is to determine whether the product sound-absorbing biobased infill (or panels) for noise barriers is already available and whether a procedure for an innovation partnership is necessary or not in order to meet the procurement needs of the coalition.

1.5 Target group

All market parties that can potentially contribute to the further development of biobased noise barriers are invited to participate in this market consultation. This applies to parties both inside and outside the Netherlands.

2 Procurement needs

2.1 Procurement need in brief

The coalition of contracting authorities requires infill for noise barriers that:

1. biobased is, and
2. circular, and
3. meets the technical set of requirements for noise barriers, and
4. has a modular structure

In the learning environments, the development tasks needed to further develop biobased infill for noise barriers to Technology Readiness Level (TRL) 8/9² were explicitly discussed. Circularity was mentioned by the market as an important innovation challenge, alongside meeting the requirements in the areas of sound absorption, dynamic pressure, fire safety and fire resistance, service life and grid dimension. The outcomes of the learning environments are explained in more detail in the paragraph below.

The aim of the intended Innovation Partnership is to further develop the selected biobased infill (or panels) to a product at TRL 8 to 9 within a period of a maximum of 1.5 years.

2.2 Explanation of procurement need

1. Biobased

Within the NABB, a biobased product is understood to be: a product consisting of renewable raw materials of biological origin. These raw materials are derived from plant biomass and are produced in a way that respects natural cycles and can regrow within a foreseeable period of time (maximum approximately 75 years).

Requirement:

- a. *the infill consists of the highest possible weight percentage of biobased materials per m².*

Market research has shown that there are various barriers on the market that use biobased materials for infill. However, in the infill for noise barriers with a wood or Miscanthus fibre cement layer, which are often used along national roads and railways, the weight percentage of biobased per m² is very low, around 6%.

2. Circularity

Circularity is understood to mean 'development, use and reuse of buildings, areas and infrastructure, without unnecessarily depleting natural resources, polluting the living environment or damaging ecosystems'.³

Requirement:

- a. *The infill must be designed adaptively and in a detachable manner, i.e. at least the infill – i.e. the sound-absorbing part – in relation to the structural part of the noise barrier can be easily and without damage dismantled, adapted or reused (including reassembly);*

² <https://rwsinnoveert.nl/uitleg-trl/uitleg-trl/>

³ Meten van circulariteit, 3.12

- b. After the end of its service life, at least 50% of the mass of the infill is reusable⁴ and/or recyclable⁵ as such is.*

Market research has shown that the concrete barriers with a sound-absorbing natural fibre cement layer, which are frequently used along (national) roads and railways, currently do not meet requirement 2a. The absorbing top layer cannot be removed from the concrete substrate as such, so that the infill cannot be reused or recycled in a high-quality manner at the end of its service life. In addition, the binder of the fibres (cement) is neither a biobased nor a circular solution. Without explicit prospects for circularity for this type of barrier, they fall outside the scope of this innovation partnership.

3. Technical set of requirements

The technical set of requirements refers to the full set of technical requirements that a noise barrier along (national) roads and railways must meet. This set of requirements has been drawn up by the coalition of contracting authorities and includes, among others, the requirements below.

Requirements:

- 1. The noise barrier must be sound-absorbing and sound-insulating in accordance with RMG 2012. For application along national roads, the barrier must meet an absorption value of at least 8 dB in accordance with EN 1793-1. For ProRail, the barrier must meet an absorption value of at least 5 dB.*
- 2. The noise barrier for (national) road application must be calculated with a dynamic pressure exerted by road traffic, in accordance with NEN-EN 1794-1, dynamic pressure 2. The noise barrier for railway application must be calculated with a dynamic pressure exerted by train traffic, in accordance with NEN-EN 1991-2. Dynamic pressure must be calculated in accordance with GCW2012.*
- 3. The noise barrier must comply with the fire safety requirements in accordance with GCW 2012. For ProRail, at least class 2 of NEN-EN 1794-3 Annex A applies, without interim maintenance such as impregnation.*
- 4. The noise barrier must comply with the fire resistance and fire behaviour requirements of Rijkswaterstaat in accordance with GCW 2012. For ProRail, at least class C-s2,d1 in accordance with NEN-EN 13501-1 applies. The product must be classified in its final end-use application (classification of only the material is not sufficient).*
- 5. The minimum service life of the noise barrier panel must be 25 years, without major interim maintenance. This will be validated, among other things, on the basis of the 'Test protocol and standards for alternative materials for use in noise barriers', which has been developed by ProRail in cooperation with Rijkswaterstaat.*

Market research has shown that several barriers using biobased materials do not meet one or more of the above requirements.

⁴ [Hergebruik en losmaakbaarheid in de Bepalingsmethode](#)

⁵ *Recyclebaarheid volgens de definitie ad. c1 en c2, zie [Vormen van recycling beoordelen](#) | CMP*

4. Modular structure

A modular structure is understood to mean a noise barrier consisting of foundation, posts and infill. For more information, see the 'Manual Modular Noise Barriers' by RWS, 2023.

Requirement:

- a. For national roads, the panel (or combination of panels) must span a length of 6 m. For railways, the panel (or combination of panels) must span a length of at least 4 m.

Market research has shown that several barriers that use biobased materials for infill cannot meet a grid dimension of 6 meters.

2.3 Preliminary conclusion

The market research from 2024 and 2025 shows that there are no products available on the Dutch market that meet the procurement needs of the coalition of contracting authorities.

3 Procedure

3.1 Planning

The table below provides insight into the planning of this market consultation:

Activity	Date
Publication of market consultation on TenderNed	13 th of April 2026
Deadline for submitting completed questionnaire via TenderNed	28 th of April 2026
Publication of report via TenderNed	15 th of May 2026

3.2 Completion of questionnaire

Chapter 4 of this market consultation document contains a questionnaire. This questionnaire is also available as a separate Word document in TenderNed. In this Word document, the answers can be elaborated in the black-outlined text fields. The completed questionnaire can be submitted via the messaging module in TenderNed at 28th of April 2026.

If you have any questions about this market consultation, you can submit them via the messaging module in TenderNed.

3.3 Report of the market consultation

The market consultation is concluded by publication of the report of the market consultation on TenderNed. The report is drawn up by Rijkswaterstaat and Building Balance and contains the main points with the most important conclusions. The public publication of this report ensures a level playing field and allows all interested market parties to access the information. The findings in this report are anonymised and commercially confidential information is not included in this report.

3.4 Conditions of the market consultation

The market consultation is held under the following conditions:

- Given the non-binding nature of the market consultation, no rights can be derived from any information provided in connection with this market consultation. Participation is completely voluntary and without obligation.
- Rijkswaterstaat does not provide reimbursements for costs incurred or to be incurred in connection with this market consultation.
- The report of this market consultation will be included in any subsequent procurement procedure.
- Participation in the consultation has no consequences with regard to any future procurement procedure. No preferential positions or grounds for exclusion arise from participation in the consultation.
- At the start of any procurement procedure, Rijkswaterstaat will make the report of the market consultation available to everyone, in order to ensure that any procurement procedure can be conducted in an objective, transparent and non-discriminatory manner (to prevent restriction of competition for any party).

- Information from this market consultation may deviate from information that is later provided in the context of any intended procurement.
- The market consultation is not an invitation to submit a tender for any procurement.
- Rijkswaterstaat reserves the right to adjust the planning as outlined in this document at its own discretion and/or to terminate the market consultation process in whole or in part.
- The information provided to Rijkswaterstaat through this market consultation will be treated confidentially and will not be used for any purpose other than gaining (market) knowledge in order to draw up qualitatively better procurement documents.
- By participating in this market consultation, the interested market party declares its agreement with all conditions mentioned.

4 Questionnaire

4.1 Explanation

Through this written market consultation, Rijkswaterstaat and Building Balance wish to assess whether the conclusion from the previous market research still holds and whether the outcomes of the previous Dutch market exploration also apply outside the Netherlands. We kindly ask you to answer the questions under 4.2.

4.2 Questionnaire

Question 1: To what extent do you, as a market party, have sound-absorbing biobased infill (or panels) for noise barriers at your disposal?

[Please enter your answer here]

Question 2: To what extent can you, with your biobased infill, meet the requirements regarding circularity?

[Please enter your answer here]

Question 3: To what extent can you, with your biobased infill, meet the technical requirements regarding sound absorption, dynamic pressure, fire resistance and service life?

[Please enter your answer here]

Question 4: To what extent can you, with your biobased infill, meet the requirements regarding modular structure?

[Please enter your answer here]

Question 5: If you do not yet have the requested product, what is still needed to bring the product to TRL 9 and how much time do you think you will need to meet the procurement needs of the coalition of contracting authorities?

[Please enter your answer here]

Question 6: Are you currently interested in participating in the Innovation Partnership? Why or why not?

[Please enter your answer here]

5 Appendices

See external attachments.