

## **‘Duurzame MaterialenNL’ enables the Netherlands to become a leader in the materials transition**

Global warming, environmental pollution with microplastics, and the threat of depletion of raw materials: the world urgently needs solutions that reduce CO2 emissions, use scarce materials more efficiently and turn waste back into raw materials. This will make the Netherlands and Europe become less dependent on imported strategic raw materials. As expressed in European and National policy, functional, sustainable and circular material innovations are essential to achieve the radical technological transitions that are necessary to achieve a sustainable society. The transition to economically profitable production and use of sustainable and 100% circular materials combined with new functionalities is what is called the materials transition. By focusing on this materials transition, the Netherlands seizes a huge economic opportunity: the development of a new industry around the next generations of solar cells and batteries, new recycling technology for plastics, and the creation of sustainable routes for important materials sectors such as steel, asphalt and composites. The use of sustainable and circular materials will also lead to a substantial reduction in the hidden costs for the environment and health. There is no time to lose and we must act now to enable this!

‘Duurzame MaterialenNL’ enables the Netherlands to become a leader in the materials transition by solving bottlenecks in the upscaling from lab to production. In this Groeifonds proposal three materials sectors are addressed that are essential in the materials transition: **Energy Materials, Constructive Materials and Circular Plastics**. These themes are chosen as they have great economic and sustainability potential and because the Netherlands has a strong starting position in these areas. Demonstrators are developed for new material technologies that show how sustainable material innovations can be brought from the lab to practice and how material chains can be closed sustainably and circularly. To achieve this, bottlenecks are structurally solved in the innovation process through the development of permanent open infrastructures, which develop a continuous stream of sustainable material innovations that can then be brought to the market by private partners. With this new ecosystem, the basis is created for a broader development of sustainable materials and products in our society and accelerate the transition to a circular economy. As cross-cutting themes through this innovation programme, broadly applicable state-of-the-art facilities are developed for material characterisation, a strong programme for ecosystem development, sustainability and circularity, and a programme for fundamental research that provides the demonstrators with knowledge and develops the next generations of material technology of the future.

‘Duurzame MaterialenNL’ enables the Netherlands to **become a leader in the materials transition** by solving bottlenecks in the upscaling from lab to production.

The consortium builds on the national platform MaterialenNL, which includes more than 50 research institutes, partnerships – including the National Plastics Recycling Platform – and companies and gives substance to important parts of the recently drawn up National Materials Agenda. More than 300 Dutch companies, universities, colleges, institutes, and other organisations that participate in the programme contribute to materials knowledge.

‘Duurzame MaterialenNL’ is a **national consortium**, under the umbrella of the Topsectors ChemistryNL, Holland High Tech and Energy, with broad support and commitment.

### **Economic and societal benefits**

‘Duurzame MaterialenNL’ addresses key sustainability problems of our society. In addition, the financial evaluation of the programme shows a significant earning capacity: the structural GDP impact resulting from the implementation of this proposal is estimated at 0.4 billion euros in 2032. From 2042 this will grow to 1.9 billion euro and in 2052 to approximately 3.7 billion euro annually. ‘Duurzame MaterialenNL’ contributes to reducing CO2 and other emissions, directly and indirectly by developing materials that contribute to this. It unlocks possibilities to make material flows functional and circular and develops models and systems to firmly embed these new insights in our society. Last but not least the program educates of a large number of new sustainable materials scientist and engineers that will serve as ambassadors of the new sustainable materials technology.

More information about the growth fund proposal 'Duurzame MaterialenNL'? Then contact:

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