



DESIGN WITH

GRIND

openIDEO

CIRCULAR INNOVATION CHALLENGE
MARCH 29 WEBINAR OVERVIEW

MATERIALS AT A GLANCE



FOR MORE DETAILS SEE THE [NIKE GRIND MATERIALS LIST](#) PROVIDED ON THE OPENIDEO PLATFORM

WHAT IS NIKE GRIND?

Nike Grind is a combination of materials sourced from

1. Recycled athletic shoes
2. Factory scrap left over from manufacturing Nike product



MATERIAL TYPES

SINGLE (MONO)

Rubber
EVA
Leather

COMPOSITE

EVA Laminated
PU Laminated
Mixed Textile
Coated Leather
Synthetic Leather
Fluff



MATERIALS AT A GLANCE: RUBBER



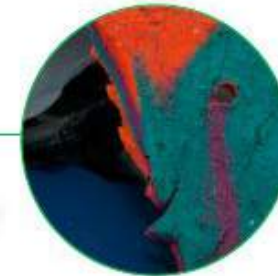
Rubber Flashings



Detail View



Rubber Outsole Components



Detail View



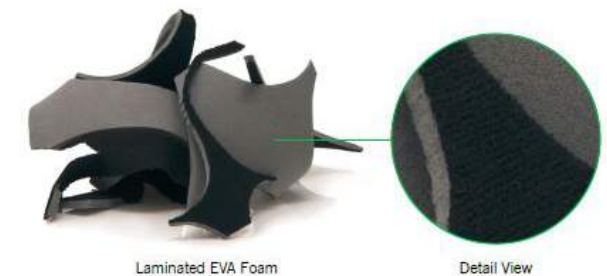
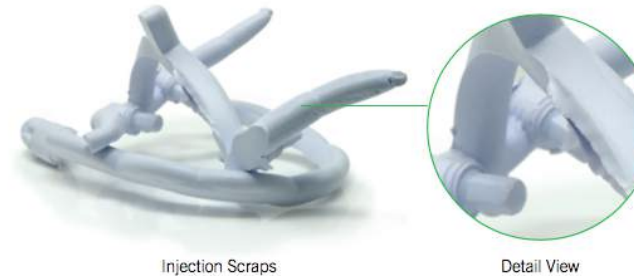
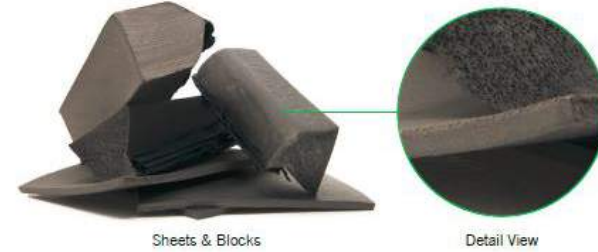
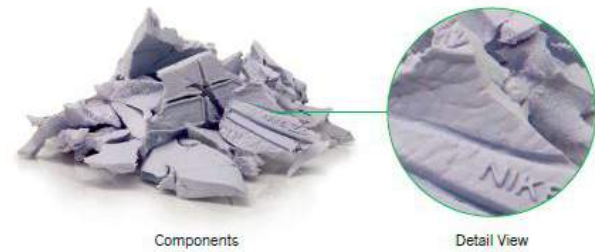
Processed Rubber 3 – 6mm



Detail View

Rubber: Rubber is primarily used in the outsole of the shoe and, in general, our rubber is composed of 70% cured polymers along with 30% additives like silica and curing and processing aids. Like our shoes' outsoles, the rubber comes in a variety of colors, mixed together. The rubber is available in both processed and unprocessed forms, which you can see pictures of in the [Nike Grind Materials List](#). What you see here is a typical 3-6mm granulate.

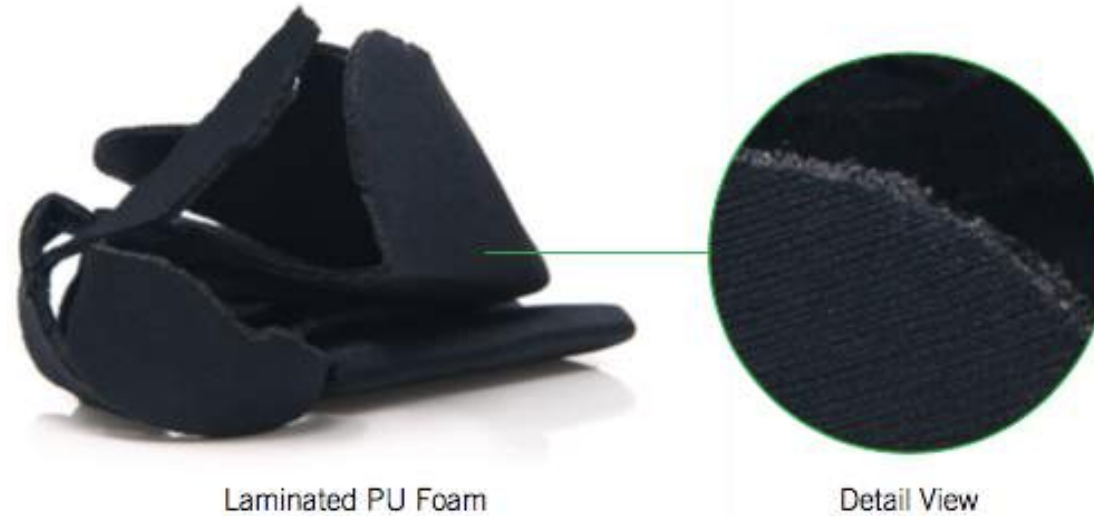
MATERIALS AT A GLANCE: ETHYLENE-VINYL ACETATE (EVA)



EVA: From the cushioning mid-sole of the shoe, we have foamed and cross-linked EVA foams that, like rubber, are also not color segregated. These pure EVA foams come in various formats or shapes, two of which you see here.

EVA is also used in a laminated form as a sockliner inside the shoe. Sockliners are essentially cushioning and moisture-wicking inserts laid on top of the shoe insole, and they are laminated with either polyester, polyester + Spandex, nylon, or nylon + Spandex. What you see in the above photo are the cut outs.

MATERIALS AT A GLANCE: POLYURETHANE FOAM, LAMINATED



PU Foam – Laminated: The other typical foams used in our footwear are PU foams. These are used to pad the upper of a shoe or as padding in the tongue of the shoe. These are open-celled foams and are laminated with nylon, polyester or other fabric backings.

MATERIALS AT A GLANCE: TEXTILE SCRAP



Textile Scrap: We also have textile scraps from both our footwear and apparel production.

On the left you'll see **mixed footwear textile scraps**. When you think about the textile scrap from footwear, imagine the upper part of the shoe. These scraps are largely strips of polyester fabric and mesh and are a couple of mm thick. They may also include cotton, nylon and polyurethanes.

Textiles from our apparel are mostly cotton and polyester, but they can also contain nylon and elastane.

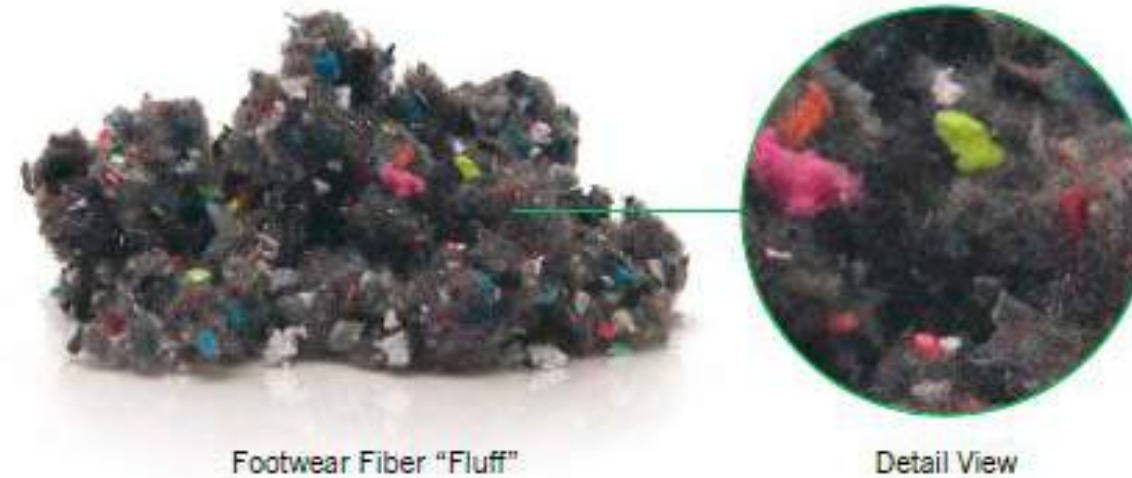
MATERIALS AT A GLANCE: LEATHER & SYNTHETIC LEATHER



Leather & Synthetic Leather: Most of the **leather** we use is either full grain leather or split leather. Both are left over from the production of the uppers of the shoe. The full grain leather cutting scraps have a pigmented, aniline or crust finish. The split leather is coated with polyurethane (PU).

On the right you'll see a photo of **synthetic leather** scrap. While synthetic leather is called “leather” it is really a leather-looking fabric or *non-woven textile* that has been coated with polyurethane.

MATERIALS AT A GLANCE: FOOTWEAR FIBER FLUFF



Fiber Fluff: Fiber fluff is unique in that it comes from the recycling of whole shoes. If you imagine running a shoe through a grinding machine that then separates the materials in that shoe through air and density, the material outputs are rubber from the outsole, foam from the midsole, and fiber from the textile upper. For this Challenge, we are looking for reuse ideas for the latter, the fiber fluff from the textile uppers, which have much - but not all - of the rubber and foam separated out.

Again, for all of these, check out the [Nike Grind Material List](#) for more info. But, for now, I'd like to give you a sense of what others have done with these materials.

NIKE GRIND IN ACTION

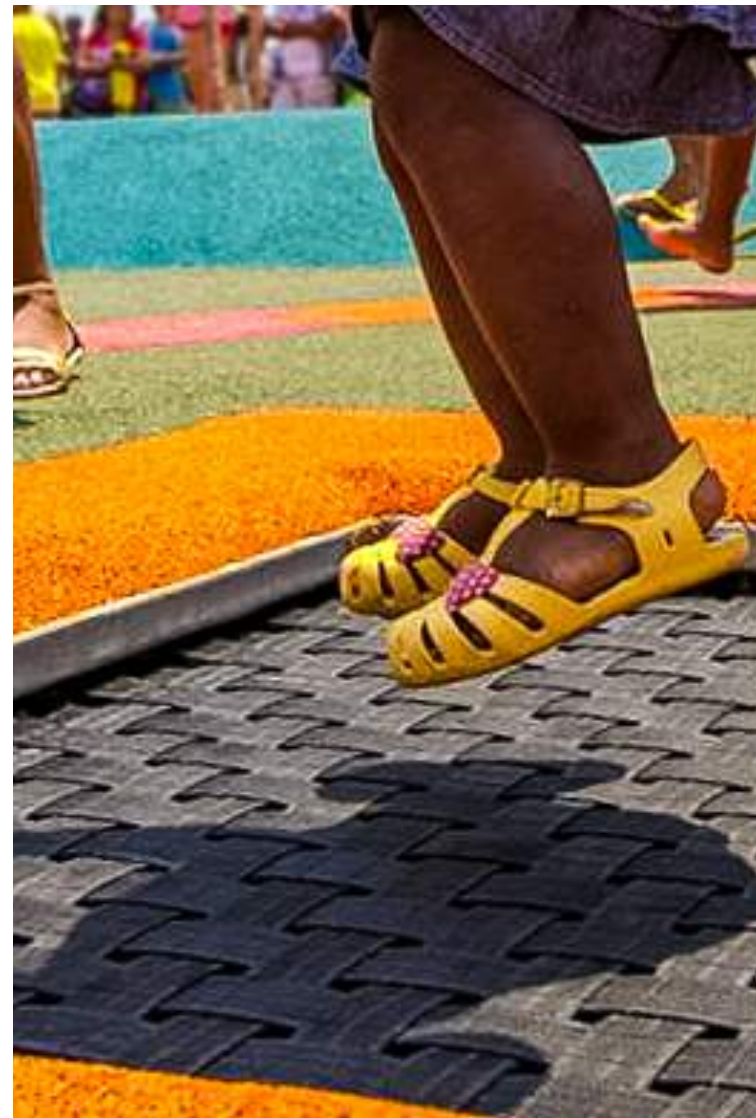
<http://www.nikegrind.com/surfaces>



**BRILLIA RUNNING STADIUM,
TOKYO JAPAN**



SACRAMENTO KINGS STADIUM



MADUREIRA PARK, RIO DE JANEIRO



PENN STATE

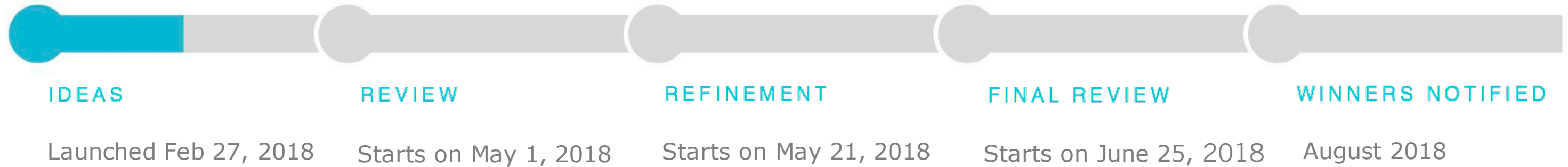
**THIS IS WHERE
YOU COME IN.**



openIDEO

How might we create a waste-free, circular future by designing everyday products using Nike Grind materials?

CHALLENGE TIMELINE



Anybody can participate as Challenges are open to all.

You don't have to have any experience or be a professional, anybody can participate and contribute to a Challenge. It's an open community.

Build on the existing ideas, collaborate with others, tap into the community.

You don't have to solve problems alone or build from scratch. The open platform encourages innovation through collaboration. For those concerned about intellectual property rights, there is a private channel available. However, this channel does not enable open collaboration.

Focus on the 'How Might We', the scope in the brief, and the evaluation criteria.

While creativity and exploratory thinking is always encouraged, the ideas that match up to the Challenge brief are more likely to move forward.

You will be required to submit a prototype or other visual representation of your concept, so begin planning that now.

PRIZES

One grand prize winner will receive \$30,000, and up to four more top innovators will receive \$5,000 grants for further development of their concept. All promising proposals will be considered for further partnership with Nike.

Individuals, teams of individuals, and legal entities are all welcome to participate. Some geographic restrictions apply. For contest rules, including eligibility requirements, please see the full [Terms & Conditions](#) found on the [Challenge Brief](#).

1	—	\$30,000
2	—	\$5,000
3	—	\$5,000
4	—	\$5,000
5	—	\$5,000

PROPOSALS DUE: MAY 1, 2018 BY 5PM PDT

EVALUATION CRITERIA

Submissions will be evaluated according to the following criteria:

1 — Solution

The proposed solution incorporates a significant amount of Nike Grind materials into new or existing products.

2 — Innovation

The proposed solution represents a significant advance in the way waste materials can be repurposed into new, valuable products.

3 — Prototype

The proposed solution can be produced as a tangible proof of concept during the refinement phase of the Challenge.

4 — Business

The proposed solution has a business plan and completes a business model canvas that clearly demonstrates a pathway to scale.

ADDITIONAL CONSIDERATIONS

1 — Inspiration

We want to hear about you and your team, both in terms of your technical expertise and experience, as well as your commitment to creating a better future for all.

2 — HCD

We like to see human centered design solutions that incorporate user and market feedback throughout the design process.

3 — Safety

We are interested in product ideas that adhere to product safety standards – some areas of concern may include using Nike Grind in food or medical applications.

4 — Sustainability

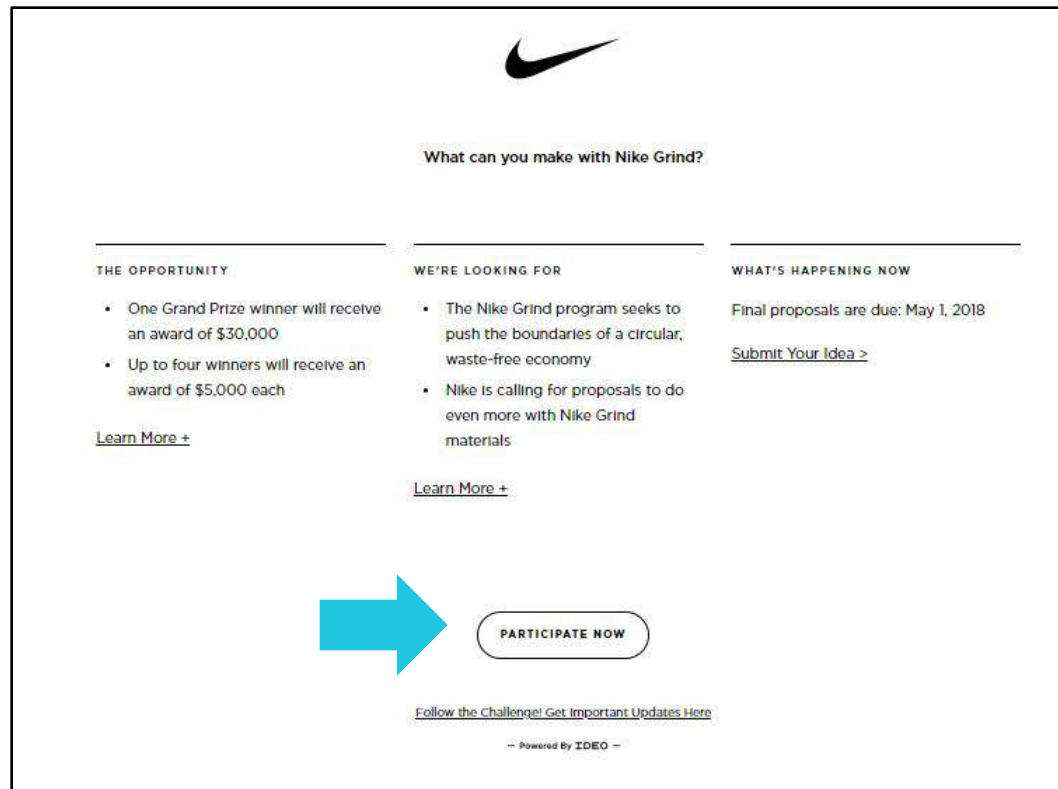
We are seeking ideas that create less environmental impact than the standard recycling model – so avoid ideas that require heavy energy inputs or hazardous chemical use.

Ideas considered **out of scope** for this Challenge:

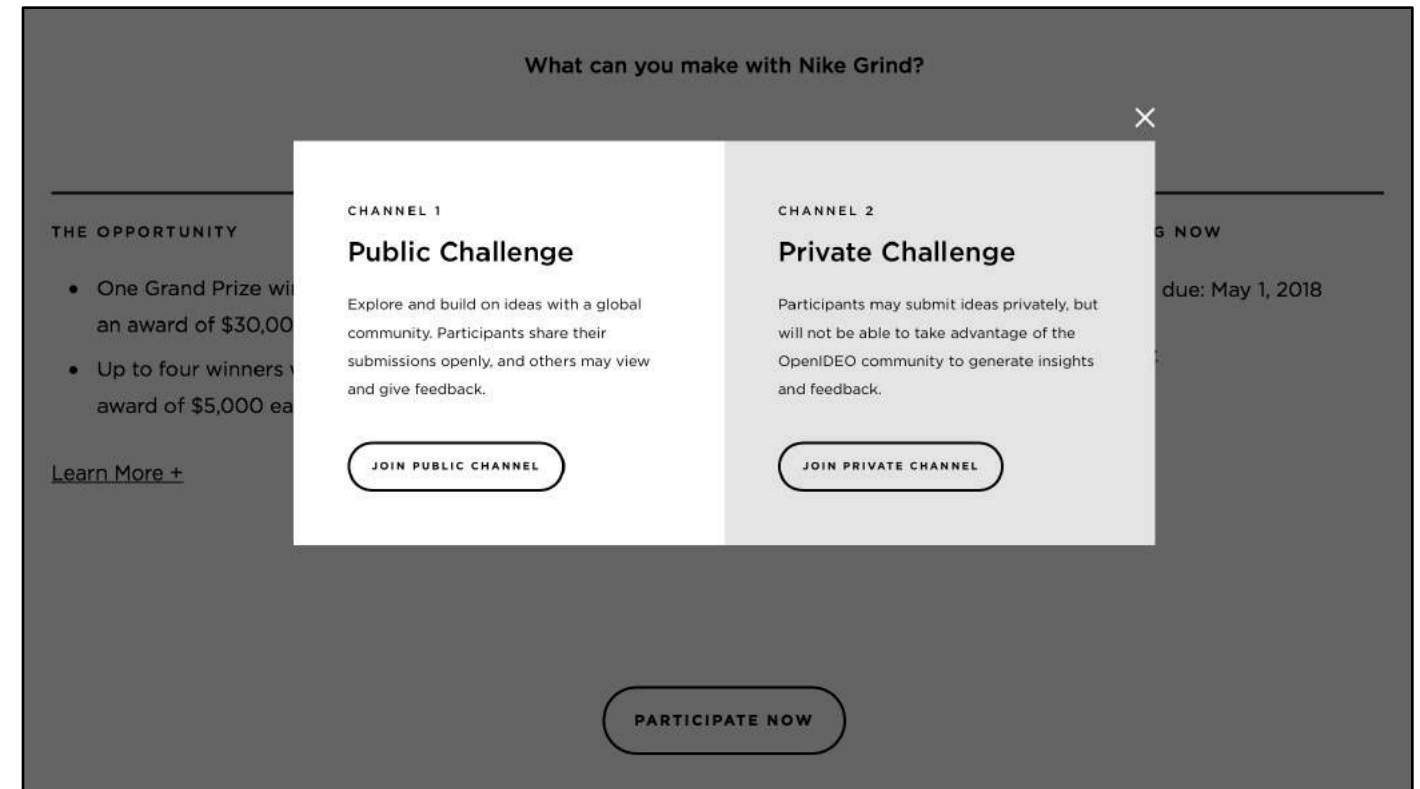
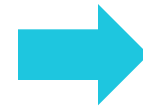
1. **Footwear and Athletic Apparel:** We cannot consider ideas for new products of the type that Nike is already making - please **do not submit** design ideas for products like footwear and athletic apparel.
2. **New Business Practices for Nike:** We are not considering new ideas for how Nike products might be designed, manufactured, recycled, or resold. While we appreciate these ideas, the questions they address are not in scope for this challenge and so ideas for new business.



HOW TO SUBMIT



CHALLENGE HOMEPAGE



SELECT PUBLIC OR PRIVATE SUBMISSION

You can submit your idea to the Challenge through [OpenIDEO](#) by following the prompts to “participate” or “submit ideas”. When you do, you’ll be given the option to select the public submission channel or the private submission channel.

CUSTOM INNOVATION EXPERIENCE:

We recognize that diverse innovators have unique concerns around IP and privacy. To address these, we have included a two-track submission experience for participants.



PRIVATE SUBMISSIONS

By opting for the private submission track, your idea will not be shared with the public. However, you will also not be able to take advantage of the OpenIDEO community to generate feedback, build upon one another's ideas, or receive targeted comments and questions from our global network of innovators.



PUBLIC SUBMISSIONS

The public submission channel permits ideas to be viewed and further developed by the entire OpenIDEO community.

We find that opening ideas to a global community with a variety of experiences, cultural backgrounds, and areas of expertise holds rich learning opportunities and the potential for real and lasting impact, including emergent conversations and unexpected collaborations.

PRE-APPROVED COUNTRIES

We welcome submissions from individuals, teams, and companies. We have pre-approved eligibility for several countries, listed below:

United States of America
Canada (except Québec)
Mexico
United Kingdom
France
Germany
Belgium
Netherlands
Denmark
Sweden

Norway
Finland
Spain
Italy
Austria
Japan
China
Indonesia
Vietnam
Australia

If you'd like to submit your idea, but your country is not on this list, we welcome you to submit your idea anyway; submissions from additional countries may be considered on a case-by-case basis.

Q&A



What is Nike planning to do with my idea?

We are interested in finding new ways to make use of Nike Grind materials. Ideally, your proposed solution will result in a long-term partnership through which we provide you with access to Nike Grind materials, and you make and sell your products with those materials.

Does my proposal have to be a novel product, or can I propose a new way to use Nike Grind in a product that already exists?

Like the sport surface examples we talked about earlier, we are thrilled to see new ideas for how Nike Grind material can be incorporated into products that already exist on the market today. In fact, a proven demand is helpful. And we are especially interested in hearing about how you think you can manufacture those products with Nike Grind at commercial scale.

Can I use any other materials or does it have to be 100% Nike Grind?

We don't expect that your product be made entirely of a Nike Grind material. Most of the existing products made with Nike Grind contain a variety of materials. For example, the companies we currently partner with mix the Nike Grind with a variety of binders and adhesives, other PU foams, EPDM rubber, and so forth. We would recommend that you shoot for at least 20%-25% Nike Grind by volume, but, of course, the more Grind you're able to use in the product the better!

Are there any chemicals or additives I should not use?

[Nike's Restricted Substances](#) is probably the best resource to understand what chemistries are of concern to us. It is publicly available and it is regularly updated to meet strict global regulations as well as our own voluntary standards.

Do I have to use all the materials referenced in the Challenge's Material List?

No. You can use one or any number of them. Most of the companies we work with use a single type of Nike Grind. Do keep in mind we'll be looking for volume solutions, however.

Is the rubber cured?

Yes – the rubber and all of the Nike Grind materials exist in the same state as in finished product – fully cured and colored.

What is the melting temperature? Is there potential for material reforming?

The two synthetic mono-materials available, rubber and foam, are both cross-linked, so they will no longer behave like thermoplastics that can be re-melted and reformed. The remaining materials are all composites, and so aren't likely to behave like thermoplastics either. Our cross-linked materials may be better suited to granulation, binding, and compression molding, although they still have a certain amount of flow, viscosity and compliance to them.

I have an idea for how shoes could be recycled better, should I submit it?

We are running a simultaneous challenge on another platform that we're calling the "Material Recovery Challenge." This challenge asks how we might recover more pure materials from our footwear recycling process. We welcome you to visit that challenge site to see if your idea may fit there – www.nikeinnovationchallenge.com/recovery

I'm trying to sort out my scale plan and need to know how much the materials will cost at scale.

Nike will keep the cost of these materials as low as possible, but exact material costs will depend on the material, the degree of processing, and the volumes needed, and so we can work with those of you who move on to the revision phase to put together estimates for scale-up plans.

Are you interested in ideas to improve footwear manufacturing to help eliminate waste?

While we certainly appreciate the offer, we're already working hard to eliminate manufacturing waste wherever possible – look at Flyknit as a good example of that. Knowing that it's not yet possible to fully prevent the generation of some scrap materials in manufacturing, the focus of this Challenge is to ensure that we're finding the best possible upcycling option for the scrap materials we do have.

Can Nike, or I, process the materials further?

We work with recycling partners that can process the rubber to various specifications including, for example, 3-6mm, 1-3mm, 10-30 mesh, and 30-40 mesh. However, right now, we don't have the ability to resize or process most of other materials. Nonetheless, there's no reason that you or a processor in your area can't process, cut or grind them to a size and shape that works for your product idea.

Can you provide more specific information on the products such as density and thermal transfer rates of the materials?

More material specifics like this will be provided in the Refinement Phase on the Technical Data Sheets. For now, concentrate on crafting a strong proposal, with a great visual representation of your concept. We will have the opportunity to dive deeper into technical specifications for those ideas selected to move on to the Refinement phase.

What is the mix of material types in the mixed footwear textiles?

This class of materials is mostly polyester, but will usually contain some other material types, including spandex, TPUs, cotton, nylon, and cured adhesives. Usually, it's more than 80% polyester, but it's very important to note that this is not guaranteed. If your proposed solution requires a certain threshold of material purity, please let us know, and we will do our best to match that up with our material availability.

What data is available on the chemical makeup of the materials?

All Nike materials are tested against [Nike's Restricted Substances List](#), a set of chemical standards for our materials that meet or exceed regulatory or legislative requirements from around the world and includes substances that we have voluntarily restricted or limited in our materials. For those who advance to the Refinement Phase, we'll include more detailed material data in the Nike Grind material kits we'll send you in May.

Will we be able to sell our products in Nike stores?

We don't sell Nike Grind products in Nike stores, but we may be open to working with partners to help market and sell their products. You can see examples of this at NikeGrind.com. And on top of that, there are often other ways we can help support the promotion of Nike Grind products. We have, for example, featured some fixtures, furniture, and flooring made with Nike Grind materials in our retail spaces. We'd be happy to go into more details with you during the Refinement Phase.

WHAT YOU CAN DO TODAY

VISIT: <https://www.openideo.com/challenge-briefs/nike-design-with-grind>

NEED HELP?

Email: circular@ideo.com

SUBMIT YOUR PROPOSAL:

Deadline for submissions is May 1, 2018 @ 5pm PDT



THANK YOU