Now, more than ever, as we work to decrease our global waste streams and protect our environment, it is imperative that we invest and support innovation in the packaging sector and ensure that all designers understand both its potential impact and benefits.

– Srini Srinivasan
President, World Design Organization
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Background

Established in response to the global lockdowns due to the COVID-19 pandemic in 2020, World Design Organization® sought to adapt its longest standing programme dating back to the 1970s, Interdesign, for a virtual context that would safely and effectively engage the global design community. Drawing inspiration from past in-person and virtual design workshops, WDO’s World Design Challenges have become a significant opportunity for designers to collaborate with peers and other disciplines on initiatives of local relevance and international appeal.

The following report presents an overview of the Sustainable Packaging Design Challenge hosted by WDO and the World Packaging Organisation (WPO). Taking place from 24 May – 4 June 2021, the online design challenge brought together over 104 participants from 32 countries to rethink and redesign sustainable packaging. The goal was to focus on solutions that were food-safe, easy to use and possess a low environmental footprint.

The Sustainable Packaging Design Challenge aimed to address the following Sustainable Development Goals:

- **SDG 9**
  Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

- **SDG 12**
  Ensure sustainable consumption and production patterns

- **SDG 17**
  Strengthen the means of implementation and revitalize the global partnership for sustainable development
Packaging and our planet

Packaging is an indispensable part of everyday life. It helps to keep a variety of consumer goods safe and intact and exists at almost every level of product design, development, and production.

While the last several decades have seen remarkable progress in the areas of packaging materials, technology and user-centred design, the industry continues to take important strides to ensure sustainable and resource efficient outcomes.

Leveraging WDO and WPO's shared commitment to sustainability and education, the Sustainable Packaging Design Challenge was developed with a special focus on training initiatives for designers in packaging design and technology as a means to explore new areas for industry optimization and innovation.

Challenging the status quo

With increased consumer dialogue and public awareness around the materials we invite into our lives, sustainable packaging, from production, distribution and end-of-life is top of mind. Indeed, the safety, usability and environmental impact of packaging remains paramount.

The Sustainable Packaging Design Challenge aimed to enable a new understanding and advancement of the materials that house and protect everyday personal, food and commercial products. In looking at multiple aspects of packaging, the initiative created intersections between packaging and different disciplines, namely industrial design, engineering, graphic design and communications.

This global, collaborative project focused not only on understanding the industry status quo for packaging design and production, but also on finding sustainable packaging solutions. The seven design teams were each tasked with researching and presenting solutions in accordance with a different theme. With the demand for sustainable packaging increasing around the world, the knowledge and insights exchanged as part of this World Design Challenge will hopefully foster meaningful contributions to safeguard the future health of both our communities and our planet.
We see design as one of the key pillars in the development of successful, sustainable and acceptable packaging. Designs of the future must be in accordance with the circular economy of packaging and must always strive to reduce the demand on our global natural resources.

– Prof. Pierre Pienaar
President World Packaging Organisation
Designing the challenge

During the planning phase, the project’s Leadership Team consisting of representatives from WDO and WPO identified an initial set of 80 potential key challenge statements that could be addressed. Through an extensive prioritization exercise, seven challenges were ultimately identified to drive participant engagement and inspire efficient and shareable outcomes with the objective to rethink and redesign sustainable packaging.

Expected outcomes of this initiative were to include shareable design-led solutions that can be extended to both packaging industries and other sectors as a way to encourage waste prevention, engage and educate consumers and foster more sustainable business models.

Watch this interview led by Packaging Europe’s Tim Sykes gets the inside story from the WPO’s Pierre Pienaar and WDO’s Srini Srinivasan about how this design challenge came to be.
Building remote collaboration

Over a two-week period, 104 participants, 11 facilitators and 7 subject-matter-experts participated in a variety of virtual conferences and workshop sessions, which included informational sessions on the challenge objectives and several subject matter and facilitator check-ins as well as two playback sessions at the end of each week that invited the seven teams to present progress and outcomes in exchange for collective feedback and recommendations.

To help participants get a better sense of the issues at stake, and to guide them through their own brainstorming and ideation processes, the WPO leadership coached the seven teams on sustainability requirements in packaging, existing forms of sustainable packaging, and technical specifications in line with industry standards.

Teams communicated regularly through shared remote platforms such as Slack and Google Drive where they were able to work collaboratively, assign tasks and coordinate meetings. Teams also made use of Miro — a virtual whiteboard application — as a way to brainstorm ideas and advance their proposed solutions. A shared Google folder was utilized by all participants to access general design challenge resources and information, as well as share and upload team specific documents and archive group presentations and meeting recordings.
Outcomes

After two-weeks of intense brainstorming, discussion and ideation, the seven teams presented their design solutions at the final playback session on 4 June 2021. Embracing the provided challenge statements with creativity, teams took the time to explain their design process and their proposed concepts, which included eco-friendly e-commerce models, innovative labelling concepts, creative packaging systems for consumer goods and sustainable material solutions.

Challenge statement #1

**e-Pack Loop**

A large-scale e-commerce scheme that offers novel technical solutions for packaging, including an inflatable package for fragile consumer goods. Equipped with a QR code for better logistics, the e-Pack loop packaging is collapsible and can be reused multiple times.

Challenge statement #2

**FRESHRRR**

Offering both primary and secondary packaging for fruits and vegetables in order to avoid food waste, FRESHRRR involves the use of portioned produce baskets at the grocery store, which the consumer can then transport home in their modular bag to easily keep track of expiration.

Challenge statement #3

**Behaviour Nudges on Food Delivery Apps**

This solution offers behaviour nudges on food delivery apps to encourage both restaurants and consumers to engage in more eco-friendly habits. The system spotlights businesses that offer sustainable packaging options.
Challenge statement #4
On-the-Go Snacks

A series of portable and healthy snacks specifically designed for consumers that lead active and busy lifestyles. Each of the three products are shelf-stable and come in one eco-friendly package for morning, afternoon and evening consumption.

Challenge statement #5
End-of-Life Packaging

This solution harnesses the reverse logistics system approach to recycle materials and offer sustainable alternatives to existing packaging, including soda bottles made out of plant-based plastics that are creatively designed for optimized transport and storage.

Challenge statement #6
Click and Pour

A click and pour packaging solution for cleaning agents that utilizes a simple structure and textured grip. The design is both waterproof and biodegradable and utilizes a user-friendly, but child-proof slide motion to open to close.

Challenge statement #7
SustainLabel

An innovative concept to shift consumer behaviour, SustainLabel proposes a series of colour-coded graphic labels for product packaging. With a scannable QR code, consumers can quickly and easily learn how best to dispose of their packaging.
Acknowledgements

WDO and the WPO would like to thank all the participants and facilitators who gathered remotely across 32 countries to explore and design sustainable packaging concepts for a better world.

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- Aarti Desai
- Elif Kucuk Mustafa
- Ashique Shaji
"It was great working in a team with people of different cultures, backgrounds and skills towards something that concerns us all, protecting our planet."
About World Design Challenge
Held over two weeks, World Design Challenges are virtual Interdesign™ workshops that bring together volunteer groups of participants, facilitators and a leadership team that can be based in any region in the world. Supported by thought leaders and subject matter experts, a World Design Challenge is an opportunity for designers to collaborate with peers in other disciplines and regions on an initiative that can benefit from their immediate, focused support.

About World Design Organization
World Design Organization (WDO)® is an international non-governmental organization and the international voice for industrial design. It advocates for Design for a Better World, promoting and sharing knowledge of industrial design-driven innovation that enhances the economic, social, cultural, and environmental quality of life. Today, WDO services over 185 member organizations, representing thousands of industrial designers around the world.

About World Packaging Organisation
World Packaging Organisation (WPO) is a non-profit, non-governmental, international federation of packaging institutes, associations, federations and other interested parties including corporations and trade associations. Its mission is better quality of life through better packaging for more people.

For more information
Interested in World Design Challenges? Learn more about WDO's World Design Challenge Programme and previous World Design Challenges.

Contact us
Interested in hosting a World Design Challenge? Reach out to communications@wdo.org and let us know what you’re thinking. Our team would be delighted to hear more about your initiative.

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