

2025
INFORMATION
PACK



WOOLMARK PERFORMANCE CHALLENGE

ONE GOAL. ONE VISION. DRIVEN BY WOOL.



The Woolmark Performance Challenge is an open-source problem-solving platform designed to facilitate innovative, forward-thinking product solutions for the sports and performance market, by harnessing the unique natural properties of Australian Merino wool.

The challenge brings together leading performance apparel brands with a global pool of world-class talent. It provides a unique learning experience for participants, and awards the finalists and winners with opportunities for financial rewards and potential for career development.



THE 2021 LANDSCAPE: SCIENCE AND CONSCIENCE

66%

of consumers are willing to pay more to support brands that are doing good in the world.

(NIELSEN, GLOBAL CORPORATE SUSTAINABILITY REPORT, 2015)

75%

of consumers in the five countries surveyed view sustainability as extremely or very important.

(BOSTON CONSULTING GROUP, PULSE OF THE FASHION INDUSTRY, 2019)

9/10

9 in 10 Gen Z consumers believe companies have a responsibility to address environmental and social issues, building on millennials' demand for greener products.

(McKINSEY STATE OF FASHION REPORT, 2019)

600°C

Wool's inherent chemical structure makes it naturally flame resistant. Whilst cotton catches alight at 255°C, temperatures must reach 570-600°C before wool will ignite.

(CSIRO FACTSHEET: FLAME RESISTANCE OF WOOL)

65%

65% of surveyed consumers stated "need for trust in product authenticity" is in their top five trends for 2019.

(McKINSEY, STATE OF FASHION REPORT, 2019)

37°C

Thermal comfort concerns the maintenance of body temperature at an optimum level (37°Celsius +/- 0.5°C) Merino wool is an active fibre that reacts to changes in body temperature. So it helps you stay warm when the weather is cold, and cool when the weather is hot.

(WOOLMARK.COM, FIBRE)

How do we keep pushing product performance, comfort and style, whilst building a better future for the next generation?

How can we harness the power of engineering, technology and nature to innovate and give athletes advanced apparel solutions?



THE CHALLENGE

THE 2025 AWARDS



Internship

A 3-month paid internship at Alpinstars in Asolo, Italy, will be awarded to the entrant that most impressively meets one of the category briefs set by Alpinstars.



Woolmark Research Bursary

Up to 5 innovative concepts will be chosen to participate in the Innovation Accelerator program, where selected participants will collaborate with Woolmark's technical experts and supply chain partners. Each winner of the research bursary will receive \$5,000USD to further develop their design.

Institution Acknowledgement

Woolmark will globally recognise the institution that is judged to have encouraged the highest number of quality student submissions. This recognises the role of institutions in developing and supporting growth and innovation.

ELIGIBILITY CRITERIA

To enter the Woolmark Performance Challenge 2025 the candidate must be enrolled in tertiary education at a participating institution, during the period of 1 November 2024 – 30 May 2025.

The challenge is open to all students at both undergraduate and postgraduate level.

Participation is individual entry only (no team entries will be accepted).

The challenge invites students studying a wide range of specialisations to take part: from product design, industrial design, advanced materials, and performance/ product engineering, to textile futures, innovation and new applications and more.

If a student at your university feels that they could benefit from the educational program, and has an innovative idea that fits the 2025 brief, we would love for them to enter, no matter what their current field of study.



YOUR
UNIVERSITY
COMPLETES
REGISTRATION

DOWNLOAD THE
FULL INFORMATION
PACK AND ACCESS
EDUCATIONAL
RESOURCES

REGISTER ONLINE AT
WOOLMARKCHALLENGE.COM

COMPLETE A MINIMUM
OF ONE ONLINE COURSE
ON THE WOOLMARK
LEARNING CENTRE

Please note that this is
a mandatory requirement

DEVELOP YOUR ENTRY

Develop an entry fulfilling the criteria of the
2025 brief. Core idea to be comprised of a
minimum of 50% Merino wool.

SUBMIT VIA WOOLMARKCHALLENGE.COM
BY 30 MAY 2025 11:59PM GMT

FINALISTS'
ANNOUNCEMENT

WINNER'S
ANNOUNCEMENT

HOW TO PARTICIPATE

CHALLENGE PARTNERS 2025



At Woolmark, we believe that wool can make the world a better place. As a not-for-profit organisation, we focus on research, marketing, and certification of wool quality.

We believe that wool offers a solution to the fashion and textile industry's sustainability and performance challenges. As a not-for-profit organisation, we are committed to enriching the lives of everyone in the wool industry - from those who grow wool to those who make it and wear it.

In 1964, our Woolmark logo was crafted to champion wool as a premium fibre in a market becoming increasingly flooded by synthetics. Today, the logo is a beacon of commitment to the highest standards for more than 6 billion products proudly bearing this mark.

The Woolmark logo is the most recognised textile logo in the world. It has the power to drive a premium for wool products. It sets standards for quality, excellence and innovation in wool. When you choose Woolmark-certified, you're choosing the assurance of superior durability, performance and nature's best.



In 1963, a leather craftsman by the name of Sante Mazzarolo brought forth a future icon. Based in the small Northern Italy town of Asolo and with the perennial Alpine star flower as its namesake, Mr. Mazzarolo began producing the first products bearing the Alpinestars moniker. At that time a new sport called motocross was establishing itself and becoming quite popular across Europe. Very much aware of the sport, Sante realized an opportunity to apply his talents and technical acumen to design a new type of footwear that would meet the protective needs and demands of this beautiful yet brutal form of athleticism. The revolutionary boot that Mr. Mazzarolo produced would become an archetype for motocross protection.

Alpinestars, since its inception in 1963, is now the world-leading manufacturer of professional racing products, motorcycling airbag protection, high-performance apparel, and technical footwear. Alpinestars understands that the best design and research is achieved under extreme conditions.

Our involvement in Formula 1, MotoGP, AMA Supercross and Motocross and NASCAR, and countless other top racing organizations has led to the creation of the most advanced and innovative technical equipment for the world racing's top athletes.

These words, "One Goal. One Vision" summarise the idea that Alpinestars shares the same goal, and vision as our champion athletes. Champions put full focus and effort into achieving their goal. They prepare, train, and think intensively about racing and becoming a champion. This then makes success look easy come race day and the seasons to come. This drive contributes to our "Race on Sunday, Innovate on Monday" objective. We work with the fastest athletes on the planet to develop the safest products for riders and drivers of all skill levels. Innovation is key to this, and we strive to constantly improve our products for like-minded, passionate people who share a love for riding and racing as we do.



“We are pleased to embark on this partnership between Alpinestars and The Woolmark Company. By utilising our shared commitment to innovation, our aim is to combine our collective expertise from our fields of operation in order to merge Sustainability and Performance in the wide-ranging technical products we develop.”

CHRIS HILLARD,
ALPINESTARS HEAD OF
MEDIA & COMMUNICATIONS

THE 2025 BRIEF

In the 2025 Woolmark Performance Challenge, we are challenging this year's entrants to push the boundaries of athletic gear by leveraging the natural properties of Merino wool. By embracing the elemental properties of wool, the 2025 Woolmark Performance Challenge aims to revolutionise athletic gear, setting new standards in safety, performance, and comfort across diverse sports environments.

The challenge is to create innovative, high-performance solutions tailored to withstand nature's harshest elements across three distinct categories: Auto Racing, Off-Road Cycling, and MX (Motocross).



WOOLMARK



CHALLENGE CATEGORIES

By embracing the elemental properties of wool, the 2025 Woolmark Performance Challenge aims to revolutionise athletic gear, setting new standards in safety, performance and comfort across diverse sports environments.

CHALLENGE: FIRE

Category: Auto Racing



KEY CONSIDERATIONS:



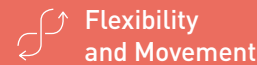
Flame-resistant

Tap into the wool fibre's natural ability to resist fire.



Comfort

Incorporate wool's thermoregulation properties to ensure next-to-skin comfort and temperature regulation under intense conditions.



Flexibility and Movement

Ensure that the gear allows for full range of motion and flexibility to accommodate the demands of racing environments.

OBJECTIVE:

Harness the wool fibre's inherent flame-resistant properties to develop advanced safety gear for auto racing.

CHALLENGE: WATER

Category: Off-Road Cycling

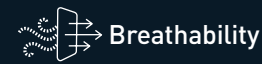


KEY CONSIDERATIONS:



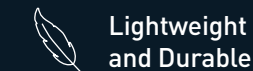
Moisture Management

Incorporate the wool fibre's natural water resistance which repels liquid moisture like sweat and rain, maintaining comfort for long rides in varying weather.



Breathability

Ensure optimal airflow and temperature control for enhanced performance and comfort.



Lightweight and Durable

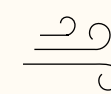
Focus on creating lightweight, durable gear that can handle the rigours of cycling.

OBJECTIVE:

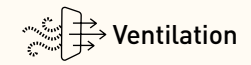
Capitalise on the wool fibre's moisture management and temperature regulating properties to create high-performance cycling apparel.

CHALLENGE: AIR

Category: MX (Motocross)

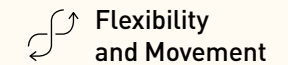


KEY CONSIDERATIONS:



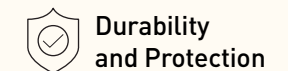
Ventilation

Utilise the wool fibre's natural breathability to design gear that regulates body temperature during intense activity.



Flexibility and Movement

Ensure that the gear allows for full range of motion and flexibility to accommodate the demands of motocross.



Durability and Protection

Incorporate elements that provide protection without compromising the breathability and comfort of the gear.

OBJECTIVE:

Channel the wool fibre's natural breathability to design gear to enhance performance and comfort in high-intensity motocross environments.



The FIRE Challenge

For the FIRE Challenge, design auto racing team protective layers using the wool fibre's natural flame-resistant properties. The design should balance safety, performance and comfort, whilst drawing on the fibre's inherent benefits to reduce environmental impacts. Explore the comprehensive design brief for each component:

BRIEF:

Select one or more of these components: **balaclava, base-layer top and base-layer pants.**

Ensure all designs align with performance requirements while reducing overall environmental or social impacts.

Inclusion of circular design principles are advantageous, but not a necessity.

Consideration of regulations/ specifications with regards to fire protection. E.g. ISO 15025 FLAME SPREAD TEST

REQUIREMENTS:

Balaclava: Lightweight, thin fabric for optimal breathability and comfort while simultaneously being ultra-protective against flames and heat transfer.

Base-layer top: Compression fit for resistance against muscle fatigue, enhanced moisture wicking and temperature control capabilities.

Base-layer pants: Combine light weight, breathable and fire-resistant materials with compression fit to be worn under the race suit.

MATERIALS:

Minimum 50% Merino wool: For the fibre's natural flame-resistant properties, moisture-wicking and comfort.

Additional Fibre Components: Prioritise 100% post-consumer recycled fibres and natural, regenerative or organic materials where possible.

Reduced Impact: Prioritise minimising carbon footprint and natural resource depletion.

AUTO RACING TEAM PROTECTIVE LAYERS USING MERINO WOOL





The WATER Challenge

For the WATER Challenge, the design of a top-performance OFF-ROAD cycling kit should leverage the wool fibre's moisture management properties while emphasising the fibre's inherent benefits to reduce environmental impacts. Explore the comprehensive design brief for each component:

BRIEF:

Select one or more of these components: **base-layer top, jersey, pants, gloves and jacket.**

Ensure all designs align with performance requirements while reducing overall environmental or social impacts.

Inclusion of circular design principles are advantageous, but not a necessity.

REQUIREMENTS:

Base-layer top: Ultra-lightweight construction with compression fit for maximum moisture management, cooling, comfort and mobility.

Jersey: Lightweight construction designed with ventilation and mobility features for enhanced range of motion and endurance.

Pants: Maximise stretch for flexibility on the track, highlighting comfort and durability.

Gloves: Ventilated with high elasticity accompanied with strong grip/traction materials on the palm area for heightened confidence and control on the handlebars.

Jacket: Windproof and waterproof with thermal comfort, optimised for performance and mobility on the bike, made to endure long-exposure to varying weather conditions.

MATERIALS:

Minimum 50% Merino wool in each component.

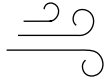
Additional Fibre Components: Prioritise 100% post-consumer recycled fibres and natural, regenerative or organic materials where possible.

Breathability: Focus on creating a highly breathable jersey with minimal synthetics.

Reduced Impact: Prioritise minimising carbon footprint and natural resource depletion.



**TOP-PERFORMANCE
OFF-ROAD CYCLING KIT
USING MERINO WOOL**



The AIR Challenge

For the AIR Challenge, the design brief for Alpinestars' MX gear focuses on using the wool fibre's natural breathability and less impactful materials to create a highly functional motocross jersey and complementary gear. Explore the comprehensive design brief for each component:

BRIEF:

Select one or more of these components: jersey, pants, gloves and jacket.

Ensure all designs align with performance requirements, prioritising comfort, while reducing overall environmental or social impacts.

Inclusion of circular design principles are advantageous, but not a necessity.

REQUIREMENTS:

Jersey: Breathable and durable with a light-weight construction designed for heightened ventilation.

Pants: Performance stretch material for comfort, durability, reliability and long-lasting performance while riding.

Gloves: Strong grip/traction materials on the palm area for heightened confidence and control on the handlebars, high performance materials for increased protection and overall performance.

Jacket: Balance wind-proofing with thermal comfort and mobility, made to endure long exposure to weather.

MATERIALS:

Minimum 50% Merino wool for natural breathability and comfort.

Additional Fibre Components: Prioritise 100% post-consumer recycled fibres and natural, regenerative or organic materials where possible.

Breathability: Focus on creating a highly breathable jersey with minimal synthetics.

Protection: MX gloves require increased protection around the knuckle areas, usually in the form of knuckle inserts (recycled or natural).

BREATHABLE AND DURABLE MX GEAR USING MERINO WOOL



FOR ALL SUBMISSIONS

- Students are required to choose one challenge category e.g. fire, water or air, for their submission.
- The proposed innovation must feature a minimum of 50% Merino wool within the core concept. Each entry should demonstrate a relevant understanding of Australian Merino wool's natural properties and how these have been explored and implemented to produce a new and original product, technology or process solution.
- The entry must be an original idea owned by the submitting student. Students may submit one entry each.
- The proposed solution does not need to be a fully realised product. We appreciate that students may not be able to fully realise their concept, but they should show an understanding of where more research data or additional machinery is needed to develop the product.
- The design may relate to fibre science, yarns, fabrics, or garment technology and should be relevant for sportswear garments, footwear and/or accessories. The innovative idea could be at any stage of the supply chain.
- This is not a fashion design competition; entries should not be limited to aesthetic designs, and performance should be at the forefront of the innovation. We encourage students to delve into the fibre science and garment technology. We are looking for innovative ideas based on research, whether primary or secondary (e.g. reviews of studies published on a certain textile development, with the entrant considering how this can be applied to wool).
- Designs should be submitted as digital representations; however, this may include high-quality photographs of hand-drawn sketches or 3D prototyping.
- It is important to keep your submission content confidential throughout the duration of the competition, with the exception of being able to share your idea with your tutor, the WPC team, competition partners, mentors and judges.



SUBMISSION REQUIREMENTS

From 1 May 2025, the Woolmark Performance Challenge website will accept entries for the 2025 Challenge.

Registered students will receive email communications alerting them to the submission portal and process.

UPLOAD GUIDELINES

To enter, each participant **must submit 1 PDF file containing the information and four sections as outlined on the right.** (File should not exceed 7MB)

More detail on the submission requirements will be provided in the briefing webinars: make sure you tune in.

Please note:

- All written elements within the entry must be in English. Submissions will not be judged on spelling or grammar.
- All sections should feature written text and visual depictions such as sketches, photographs or renderings.
- Where external research is used, please provide suitable references.

1. Idea Pitch

- Sketches/illustrations of the innovative solution or bluesky idea.
- Short written explanation of the product idea, its function and how it meets the category brief.
- Please note: Designs should be submitted as digital representations; this may include CAD drawings, high quality photographs of hand-drawn sketches and/or 3D prototyping.

2. Background research and inspiration

- Exploration and implementation of Australian Merino wool's unique properties.
- Research conducted to identify a design need (market opportunity).
- Proposed target consumer profile, with consideration to the category partner's target consumer (as appropriate).
- Source of inspiration for the design specifics, which should be a combination of written description and imagery.

3. Idea development

- Suggestion of process required to develop idea into feasible product.
- Technical specifications as required.
- Explanation of how and why Merino wool is an important component of your design.

Please note: The entrant's idea will be kept confidential between the entrant, the 2025 partners, The Woolmark Company and the final judging panel.

4. Your background

- Brief summary of who you are and your design experience to date.
- Answer for: Where do you see yourself in five years?
- Answer for: What would winning the Woolmark Performance Challenge mean to you?
- Top three achievements to date.

JUDGING CRITERIA

Finalists will be judged using criteria based on 50 points as outlined below in relation to their submission and presentation. Scores will be tallied and presented to the panel for discussion.

The judging panel must then deliberate based on the scores, and as a group, may review their scores and amend the outcome.

CRITERIA	DESCRIPTION OF CRITERIA	SCORE WEIGHT
Innovation: overall concept	<ul style="list-style-type: none">- Suitability for category- Originality and creativity of idea	10 points
Research and inspiration	<ul style="list-style-type: none">- Clear source of inspiration- Knowledge and understanding of Merino wool's natural properties- Market awareness (sports, outdoor and performance)- Evidence of target market research	10 points
Idea development	<ul style="list-style-type: none">- Interpretation and development of product beyond initial idea- Exploration and implementation of Australian Merino wool's properties- Clear market relevance: realistic need and communication of market opportunity	10 points
Development potential	<ul style="list-style-type: none">- Correct level of technical information provided- Viability of product development- Potential functionality of product and appropriateness for suggested target market- Entrant's potential to maximise the benefits of winning	10 points
Presentation	<ul style="list-style-type: none">- Overall clarity of presentation during online panel interview- Entrant's advocacy skills and communication acumen- Overall clarity of concept and interpretation in digital presentation	10 points

PROGRAM TIMELINE

WPC 2025 LAUNCH
STUDENT
REGISTRATIONS
OPEN

1 November
2024

1 May
2025

UNIVERSITY
REGISTRATION
DEADLINE
STUDENT
SUBMISSION
OPENS

30 May
2025

STUDENT
SUBMISSION
DEADLINE

July
2025

FIRST JUDGING
ROUND,
SELECTION OF
FINALISTS

September
2025

FINALIST
PANEL
INTERVIEWS

November
2025

WINNER'S
ANNOUNCEMENT

November
2025 –
April 2026

INNOVATION
ACCELERATOR
PROGRAM

INTERNSHIP TO BE
COMPLETED AT A
MUTUALLY AGREED TIME

(Further details to be
confirmed closer to time
and subject to global
travel advisories)

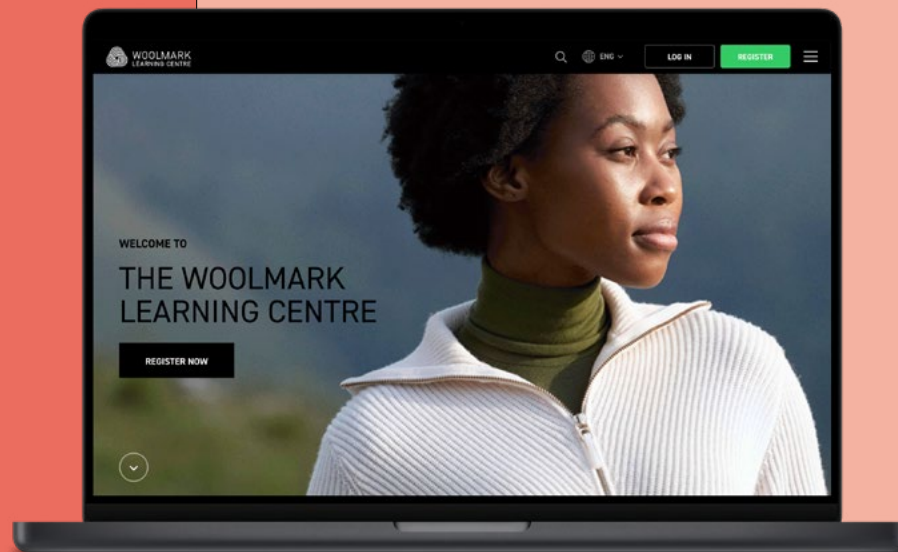
2026

EDUCATIONAL PROGRAM

The Woolmark Performance Challenge offers an unrivalled opportunity to immerse yourself into the world of wool along the supply chain. Participants will be sent monthly newsletters to guide them through their submission journey, using the resources outlined here.

Woolmark Learning Centre:

- Wool Appreciation Course – an in-depth look into the fibre and its journey from farm to fashion.
- Science and technology modules – unprecedented insights and information about the wool fibre and manufacturing processes.
- Apparel focused modules – a cross-purposed approach to support both the design and make of knitted and woven garments.
- Our introductory Sustainability and Wool course presents the theory and practice of circular design, regenerative agriculture and showcases manufacturing processes with reduced environmental impacts.
- Video content, fact sheets, research papers and more.

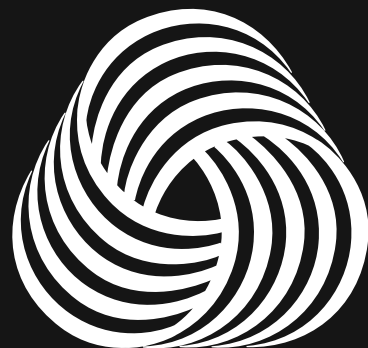


Educational webinars:

- A series of webinars from industry professionals, providing first-hand experience of the opportunities and challenges in the present market are available on your dashboard.

Mandatory requirement:

- Please note that to enter the Woolmark Performance Challenge, completion of a minimum of one course via the Woolmark Learning Centre is compulsory.
- Students must supply evidence of course completion via Credly badge or course completion certificate.





WOOLMARK PERFORMANCE CHALLENGE



[WOOLMARKPERFORMANCECHALLENGE.COM](https://www.woolmarkperformancechallenge.com)

Contact the WPC team at wpc@wool.com

  @the woolmarkcompany / #WoolmarkChallenge