

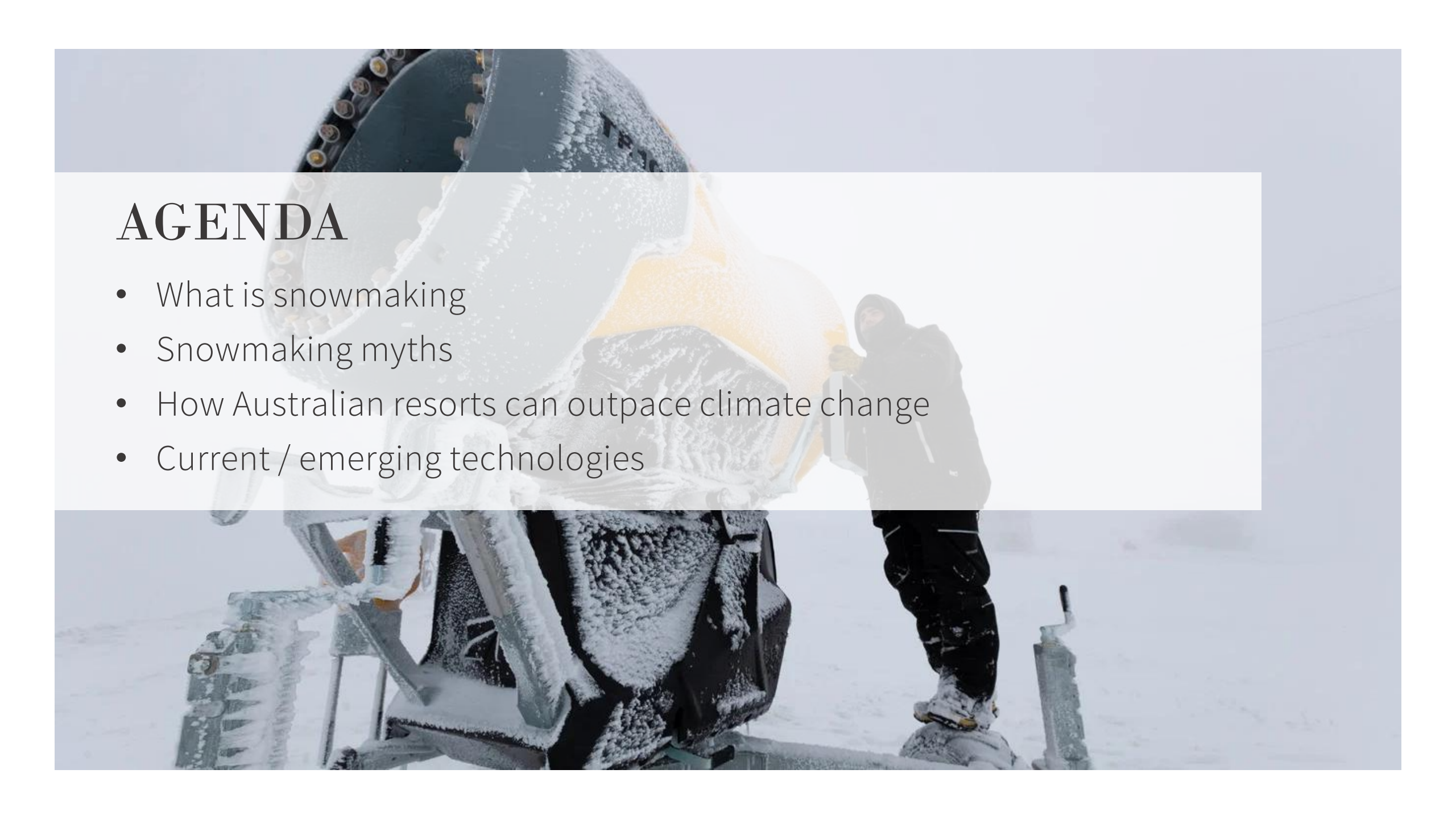


WORLD LEADING SNOW MANAGEMENT

Tim Meier – Assets & Operations Manager – Buller Ski Lifts

Ben Quane – CEO, Ski Industries

Samuel Ventura – Area Manager, Techno Alpin

The background image shows a large, industrial snowmaking machine in operation. The machine has a large, dark, curved hopper at the top, with a yellow section in the middle. It is covered in a thick layer of white snow. A person wearing a black winter jacket, black pants, and a black hood is standing next to the machine, looking down at something in their hands. The ground is covered in a layer of snow, and the sky is a pale, overcast blue.

AGENDA

- What is snowmaking
- Snowmaking myths
- How Australian resorts can outpace climate change
- Current / emerging technologies

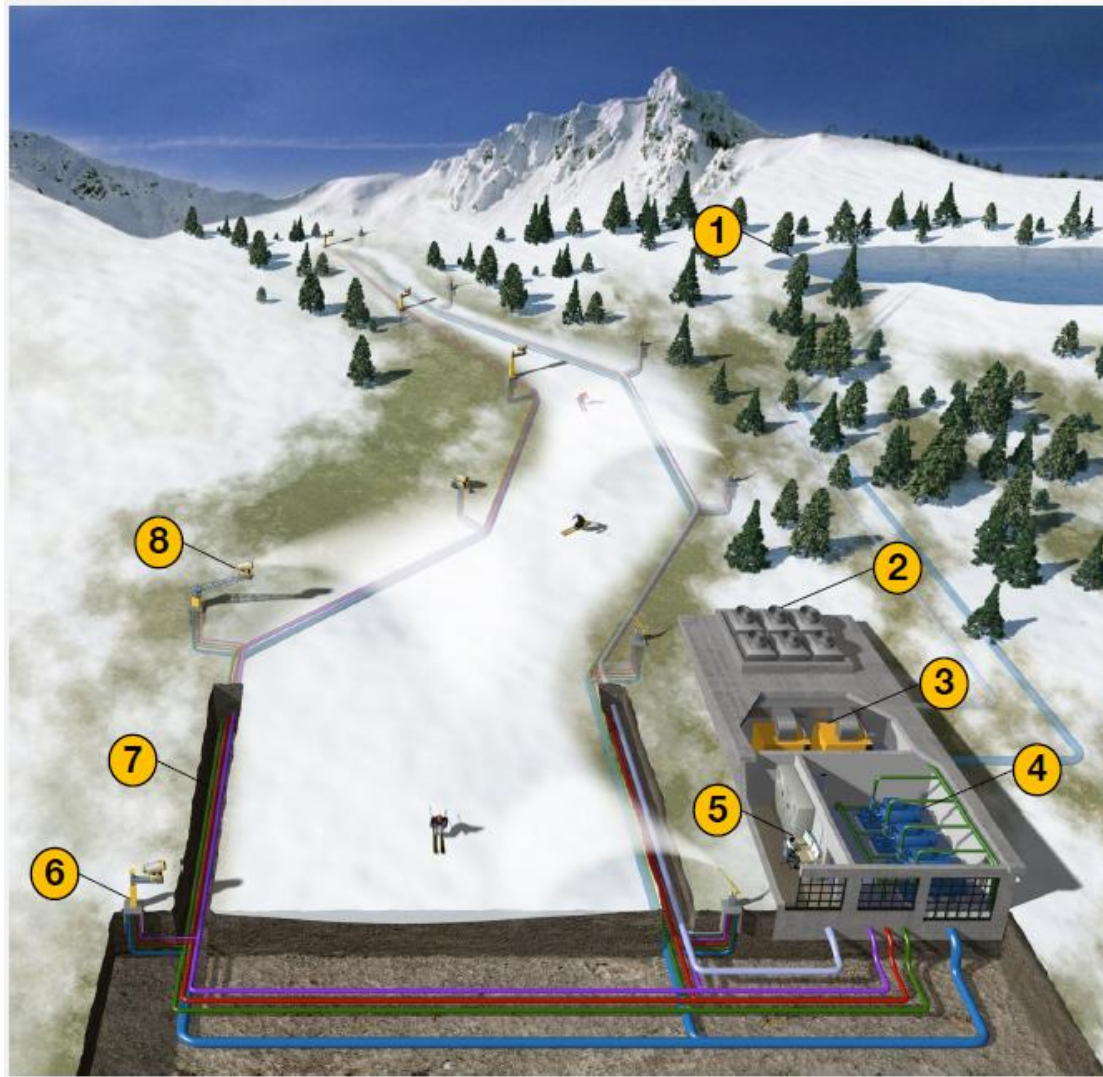
A background image showing a snow groomer machine on a snowy mountain slope. A person in winter gear is standing near the machine. The scene is overcast and snowy.

THE IMPORTANCE OF SNOW MANAGEMENT

Recent survey by PrescienceResearch:

- Snow cover / quality is the #1 consideration for people choosing a particular resort.
- Inconsistent snow cover / quality is the 3rd reason why people don't visit more often.
- Need to manage snow to provide an adequate and reliable product.

SNOWMAKING 101



1 Water source

2 Cooling towers

3 Compressor station

4 Pumping station

5 Control system

6 Pits

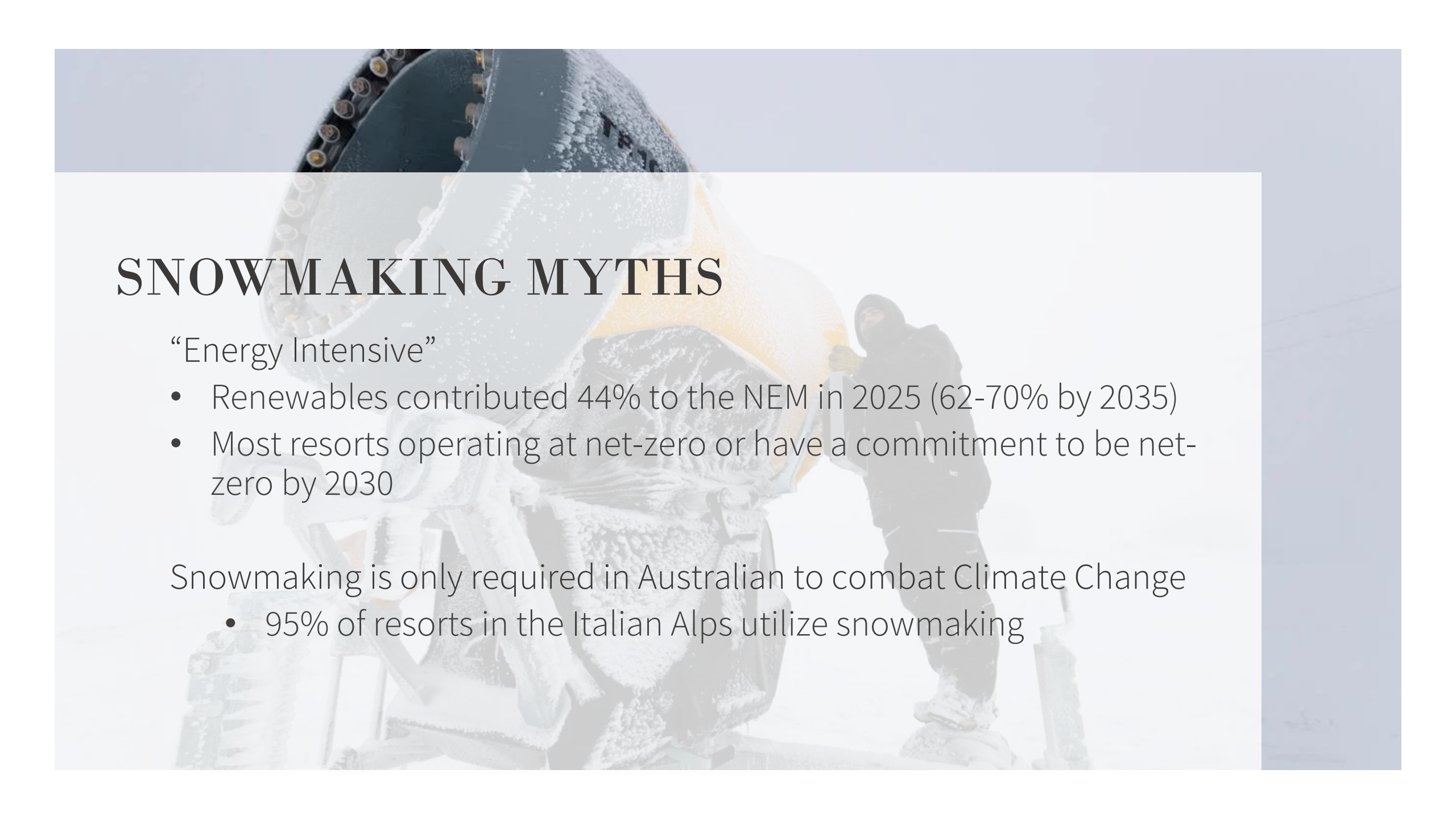
7 Trenches

8 Snow generators

SNOWMAKING MYTHS

“Water Intensive”

What?	Water Consumption (Mega Liters Per Annum)	
Large Australian Ski-Resort	250	More than 80% is returned back to the catchment in spring.
38Ha of Cotton Irrigation	250	There’s 197,400Ha of irrigated cotton in Australia.
18 Hole Golf Course	124	There’s 1000+ of them in Australia.
Data Centre	1,000	

The background of the slide features a faded image of a snowmaking machine, which is a large, dark-colored device with multiple nozzles. A person wearing a dark winter jacket and a hood is standing next to the machine, appearing to be operating or maintaining it. The scene is set in a snowy, mountainous environment.

SNOWMAKING MYTHS

“Energy Intensive”

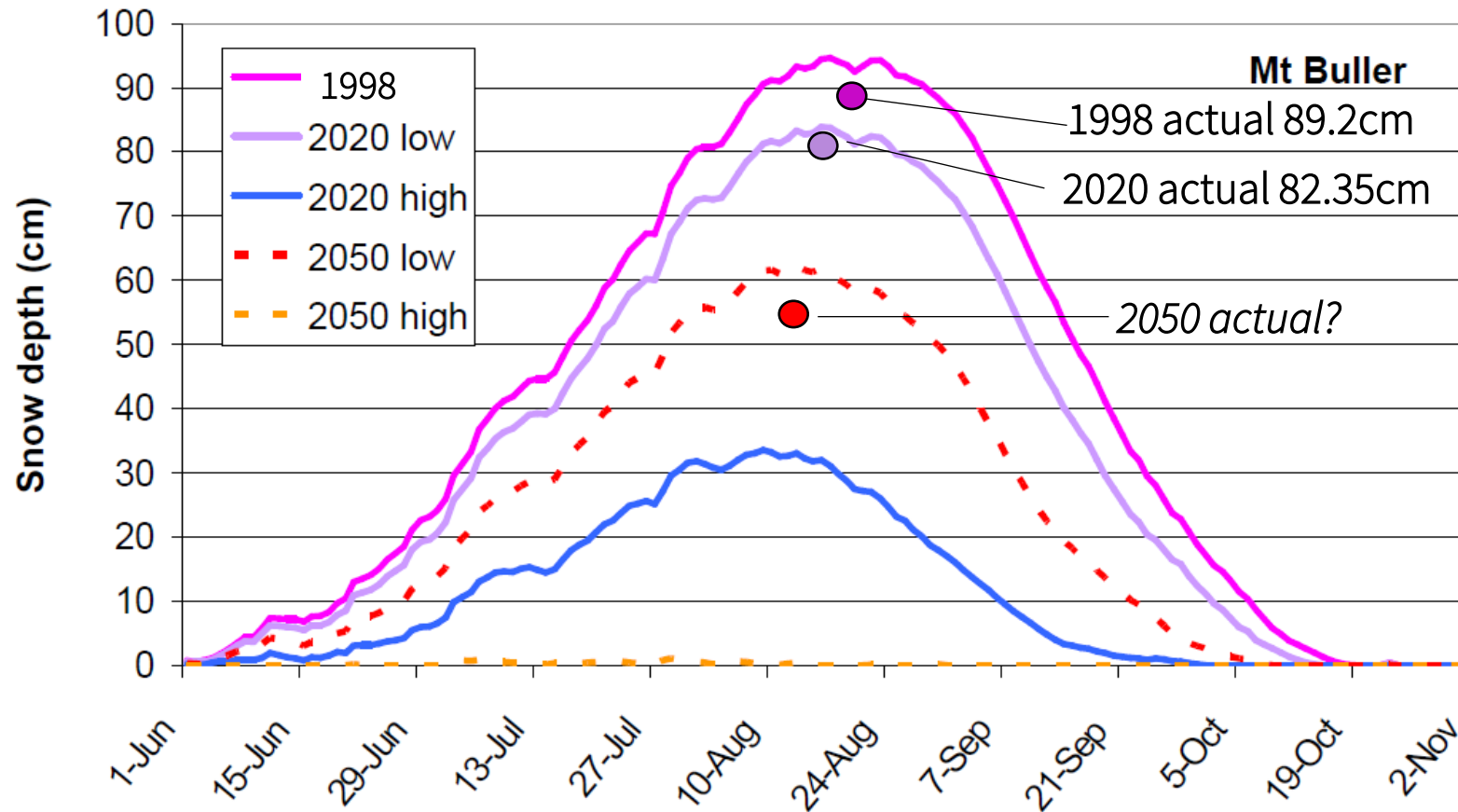
- Renewables contributed 44% to the NEM in 2025 (62-70% by 2035)
- Most resorts operating at net-zero or have a commitment to be net-zero by 2030

Snowmaking is only required in Australian to combat Climate Change

- 95% of resorts in the Italian Alps utilize snowmaking

THE IMPACT OF SNOWMAKING ON NATURAL SNOWDEPTH

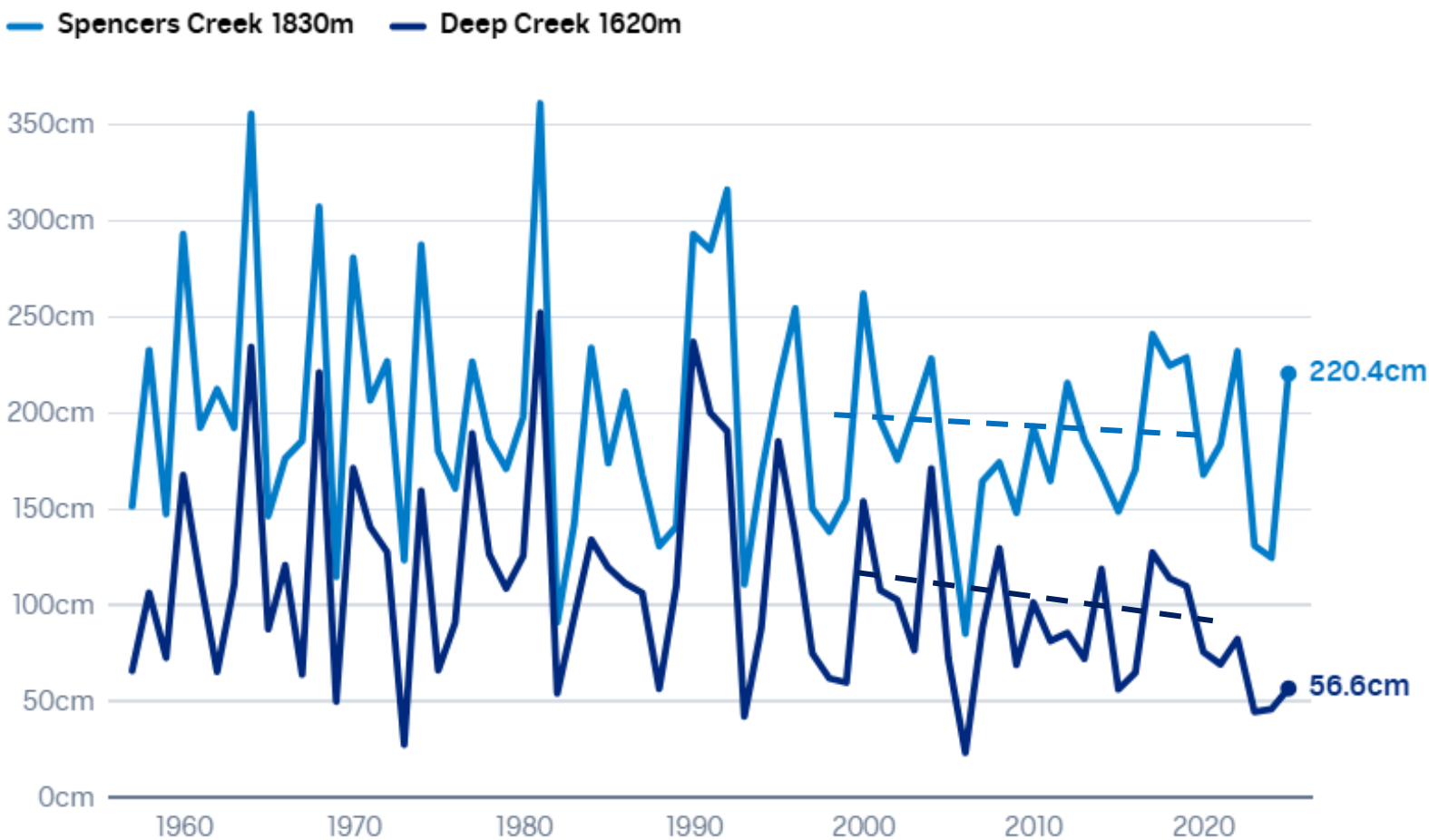
CSIRO Atmospheric Research 2003



Simulated 20-year average snow-depth at Mt Buller (1,740m) for 1998, 2020 & 2050.

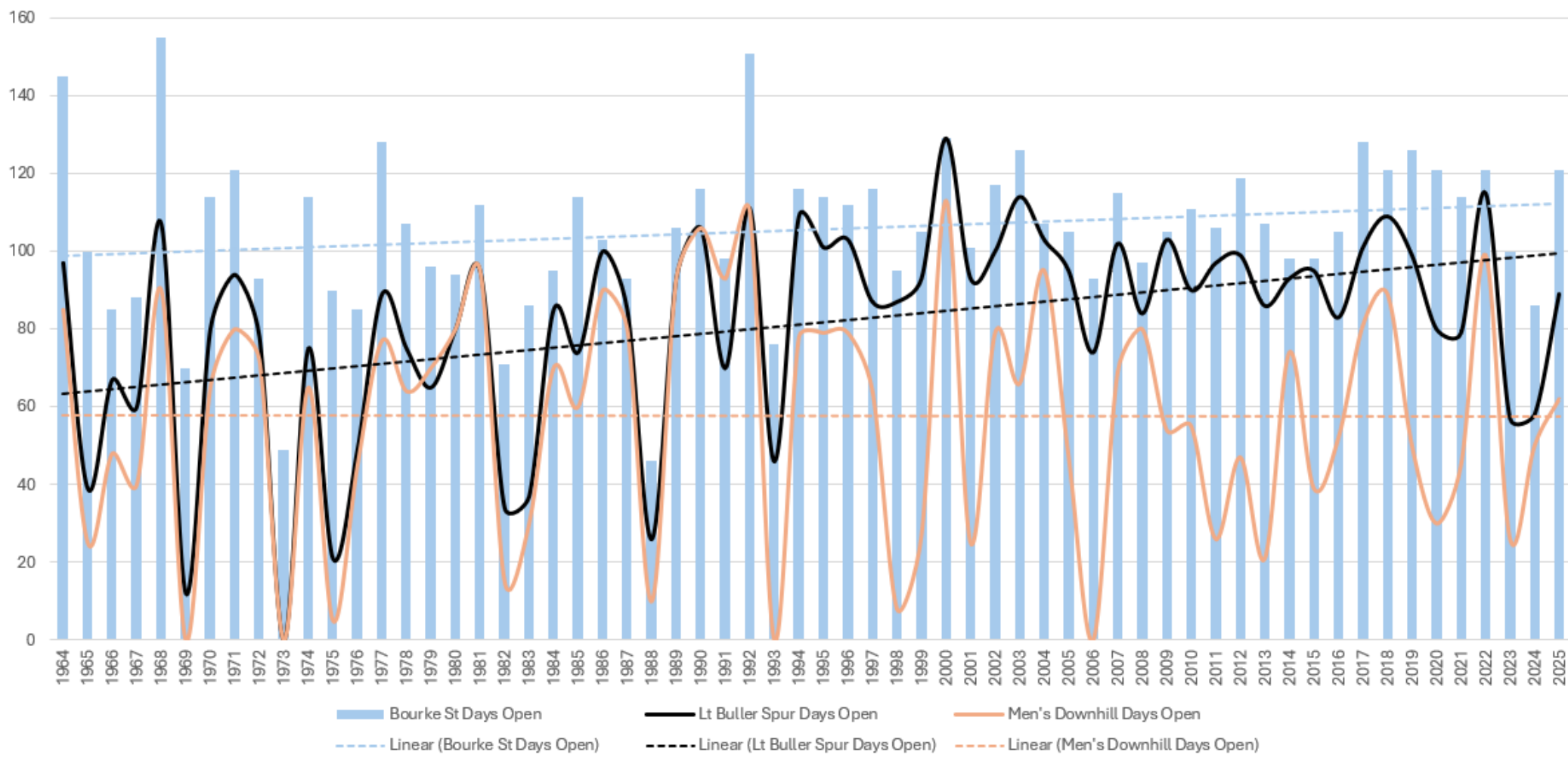
THE IMPACT IS MORE NOTICABLE AT LOWER ELEVATIONS

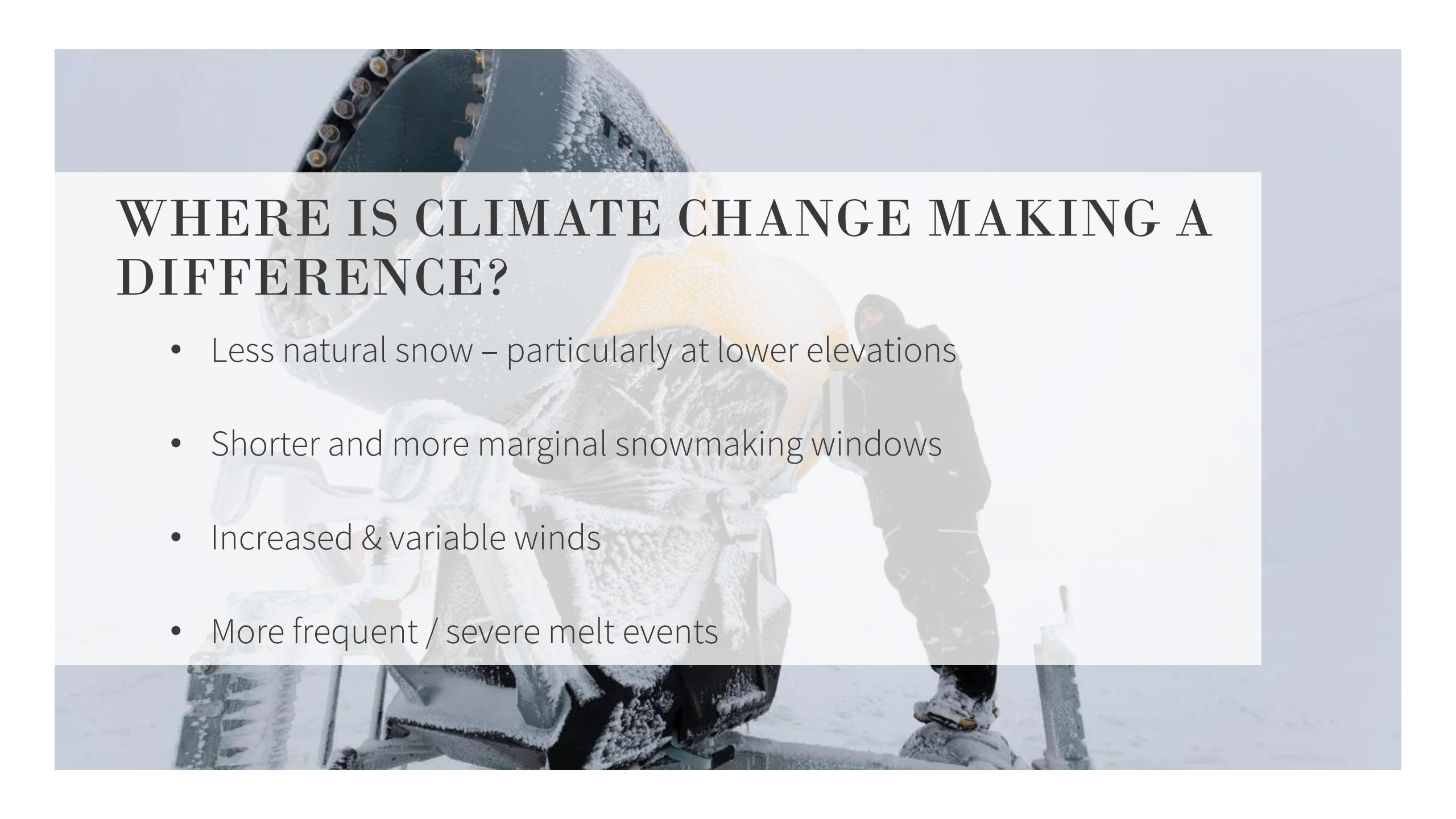
Peak Natural Snow Depth



EFFECTIVE SNOW MANAGEMENT IS CURRENTLY OUTPACING CLIMATE CHANGE

Bourke St/Lt Buller Spur/Men's Downhill Days Open 1964-2025 (Snowmaking System from 1994)

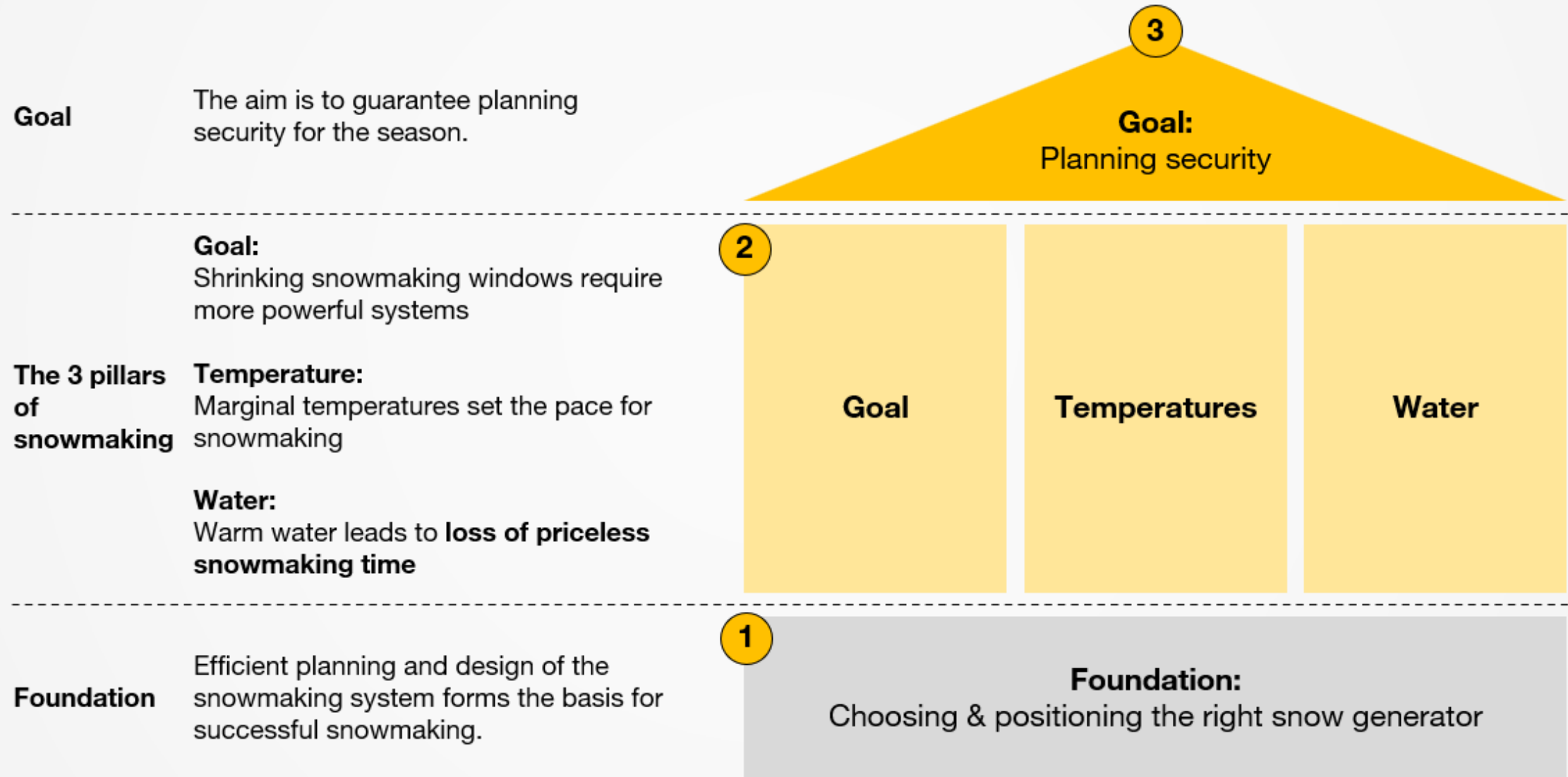


A person wearing a dark winter suit and a hood is operating a large, industrial snowmaking machine. The machine is covered in snow and has a yellow section. The background is a bright, snowy landscape. The text is overlaid on a semi-transparent white box.

WHERE IS CLIMATE CHANGE MAKING A DIFFERENCE?

- Less natural snow – particularly at lower elevations
- Shorter and more marginal snowmaking windows
- Increased & variable winds
- More frequent / severe melt events

THE HOUSE OF SNOWMAKING: THE GOAL, THE 3 PILLARS AND THE FOUNDATION OF SNOWMAKING



THE FOUNDATION OF EFFICIENT SNOWMAKING LIES IN THE CORRECT CHOICE AND PLACEMENT OF EQUIPMENT

Requirement

Modern snowmaking systems must be capable of producing a **40cm / 1.5ft base layer of snow within 50 to 70 hours.**

Factors influencing choice and positioning

Orientation (solar radiation)



Slope conditions (width, slope, etc.)



Wind- & air circulation conditions



Water supply



Result

Choosing the **wrong snow generator** and **positioning it incorrectly** on the ski slope can result in a loss up to **30%** of snowmaking performance.

LOST SNOW TIME IN THE MARGINAL TEMPERATURE RANGE: THE UNDERESTIMATE CONSEQUENCES OF WARM WATER

Reason

**Warm
water**



Consequence #1: Lost potential snow time

Why:

For every 4°C (40°F) increase in the water temperature, the air temperature needs to be 1°C colder to ensure the same snow quality.

Water Temp.	Snowmaking start (WBT °C & °F)
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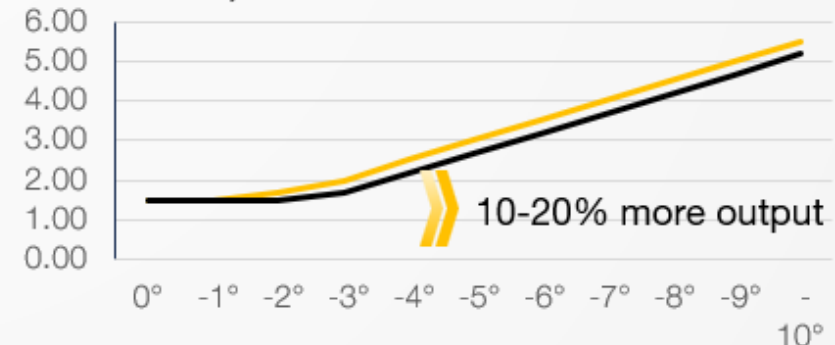
+13°C / 55°F	-5,5°C / 22°F
+9°C / 48°F	-4,5°C / 24°F
+5°C / 41°F	-3,5°C / 26°F
+1°C / 34°F	-2,5°C / 27°F

Episode #2: Lower flow rate in snow guns

Why:

Warm water temperatures result in lower flow rates for snow guns so they can produce snow

FLOW VOLUME TR10 AT +2.5°C/36,5°F & 6.5°C/43,7°F WATER TEMPERATURE



INNOVATION MAKES THE DIFFERENCE SETTING THE STANDARDS



+15%

MORE SNOW WITH THE SAME ENERGY CONSUMPTION

LANCE HEAD EXCHANGE CAMPAIGN: MAXIMUM EFFICIENCY WITH MINIMAL WASTE

A9



+0,7l/s

More water flow

VS.

V3.1



-20%

Less air consumption

VS.

V3EE



-60%

Less air consumption



SNOWFACTORY – FLAKE ICE OPERATING PRINCIPLE

1 Water supply

Drinking water is directed inside the container towards the ice-makers, the heart of the process

2 Refrigeration circuit

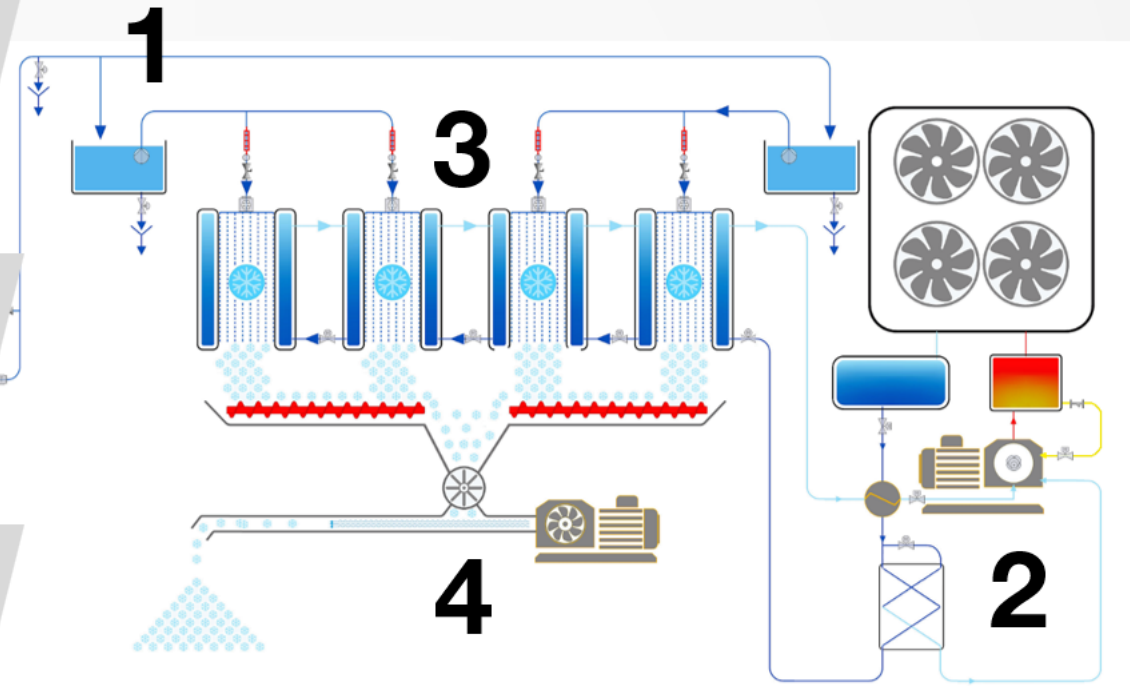
The refrigerant is cooled through an efficient heat exchange and led to the double-walled cylinder of the ice-makers. The refrigeration process is a closed cycle.

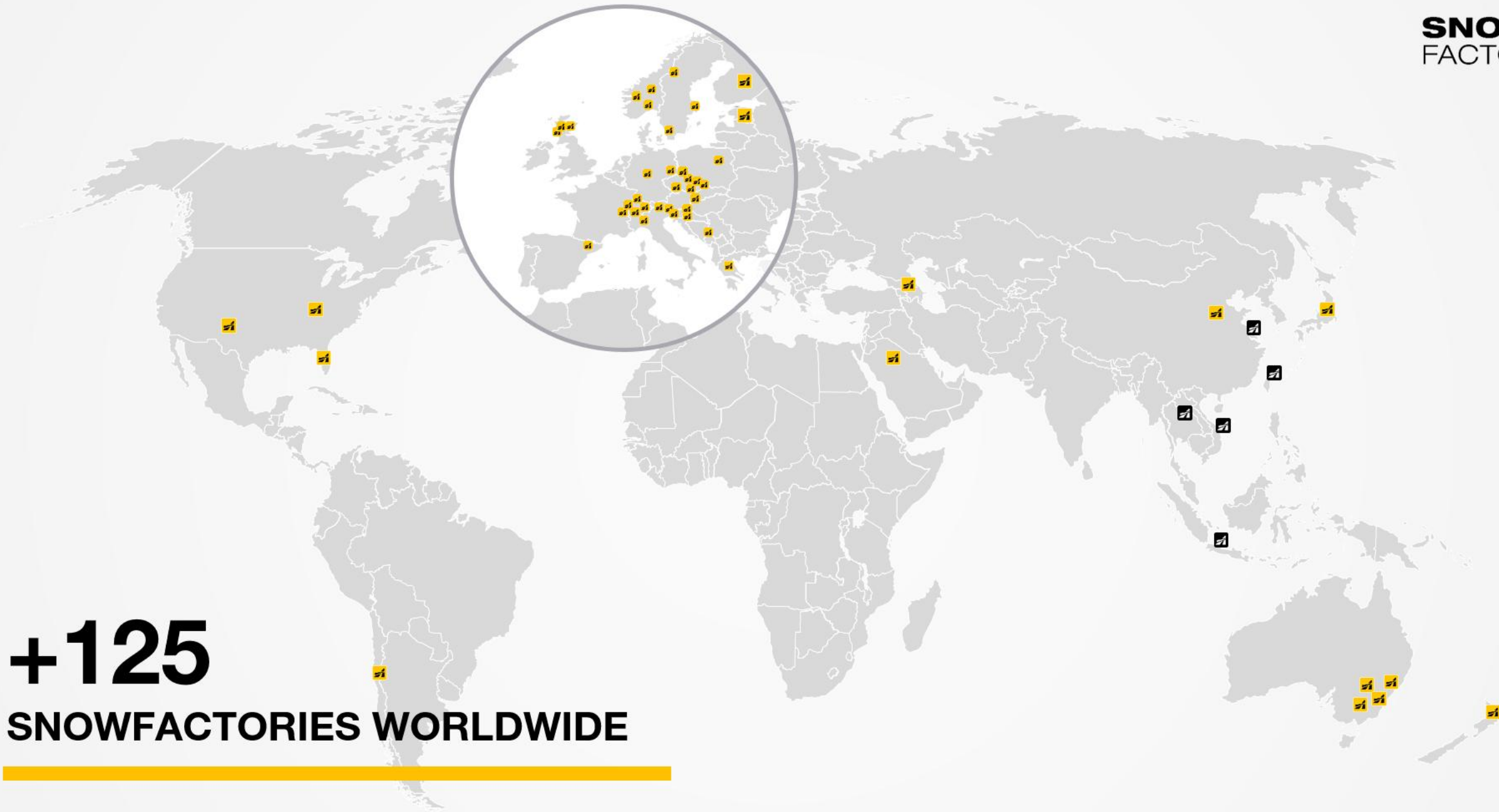
3 Ice-making

Inside the ice-makers the incoming drinking water is transformed into ice flakes due to the contact with the cooled ice-maker walls.

4 Carriage, refining & distribution of snow

The ice flakes are then transported to the blower by the screw conveyor, refined and blown to the outside.





+125
SNOWFACTORIES WORLDWIDE

SnowSat

LiDAR



SKI INDUSTRIES
SUPPLIERS OF LEADING SNOW SOLUTIONS

PistenBully®



SKI INDUSTRIES
SUPPLIERS OF LEADING SNOW SOLUTIONS

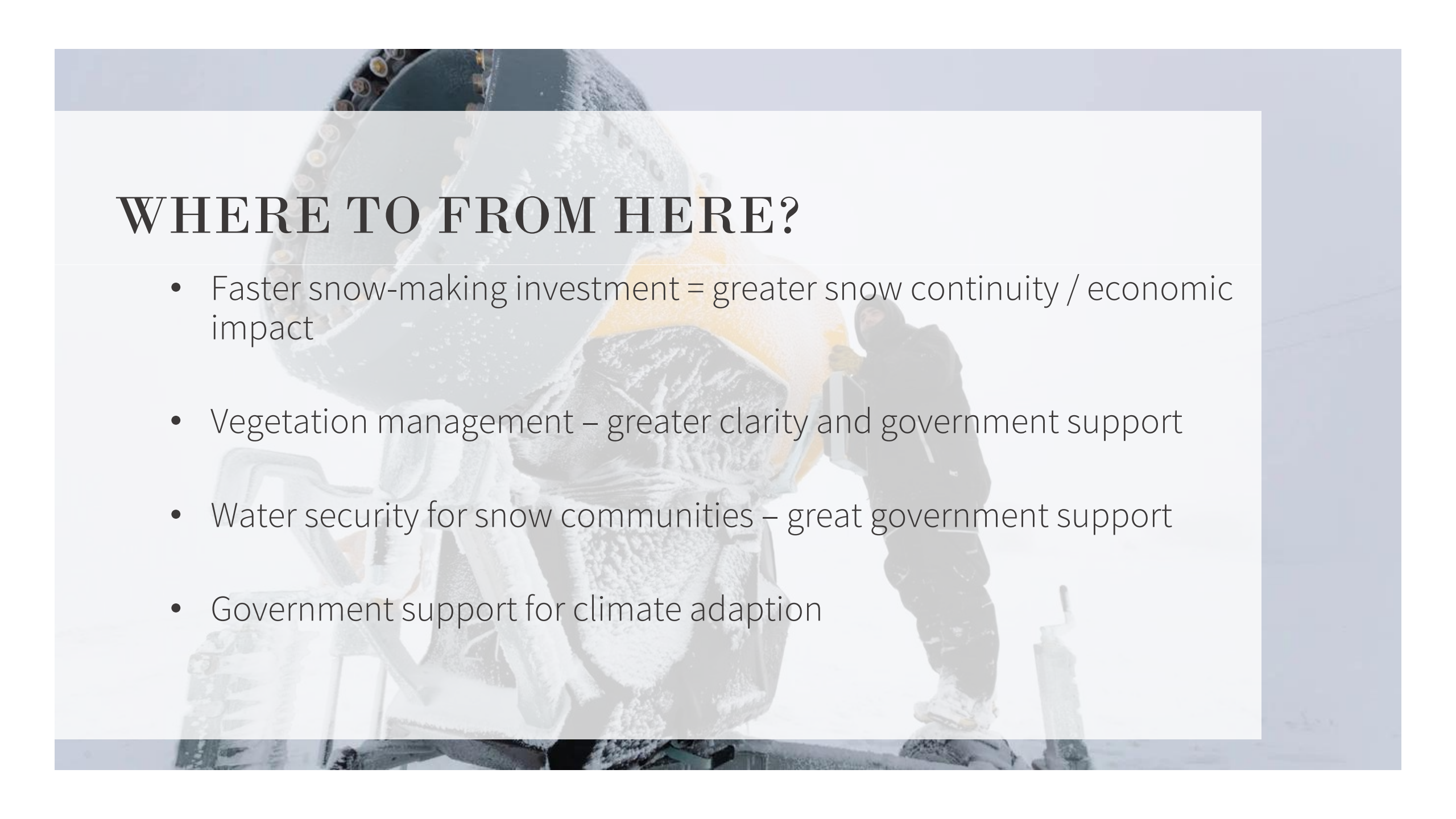
PistenBully®



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The background of the slide features a faded, grayscale image of a snow-making machine in operation. A worker in dark winter gear is visible next to the machine, which is spraying a fine mist of snow. The scene is set in a snowy, mountainous landscape under a clear sky.

WHERE TO FROM HERE?

- Faster snow-making investment = greater snow continuity / economic impact
- Vegetation management – greater clarity and government support
- Water security for snow communities – great government support
- Government support for climate adaption