

100% SNOW SECURITY



SNOW STORAGE EXPERTS

SNOW FARMING SINCE 2000

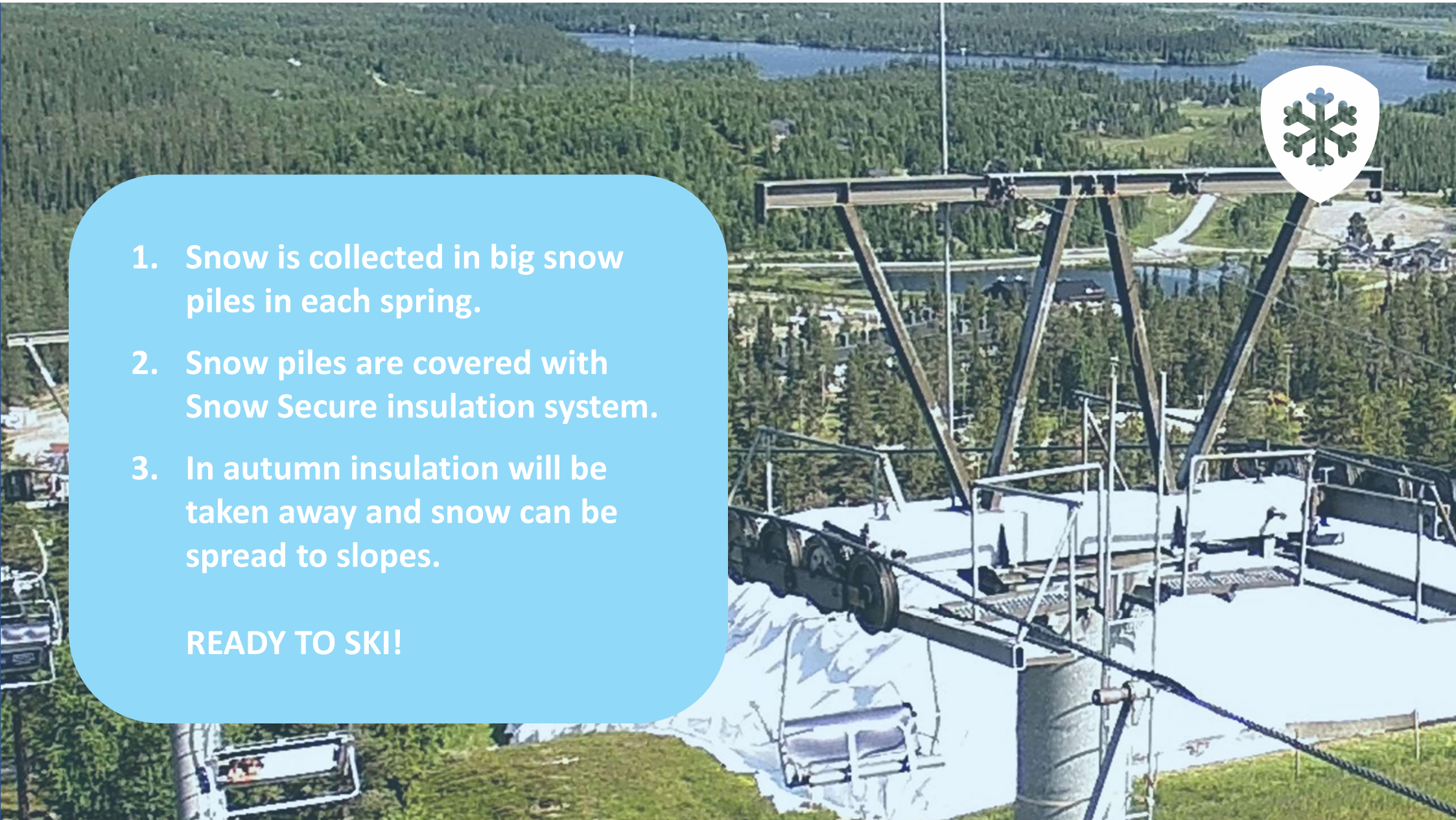


WHAT ARE SNOW STORAGES AND SNOW FARMING?



1. Snow is collected in big snow piles in each spring.
2. Snow piles are covered with Snow Secure insulation system.
3. In autumn insulation will be taken away and snow can be spread to slopes.

READY TO SKI!





WHAT MAKES SNOW SECURE Ltd. SNOW STORAGE EXPERT?

HOW ALL STARTED?



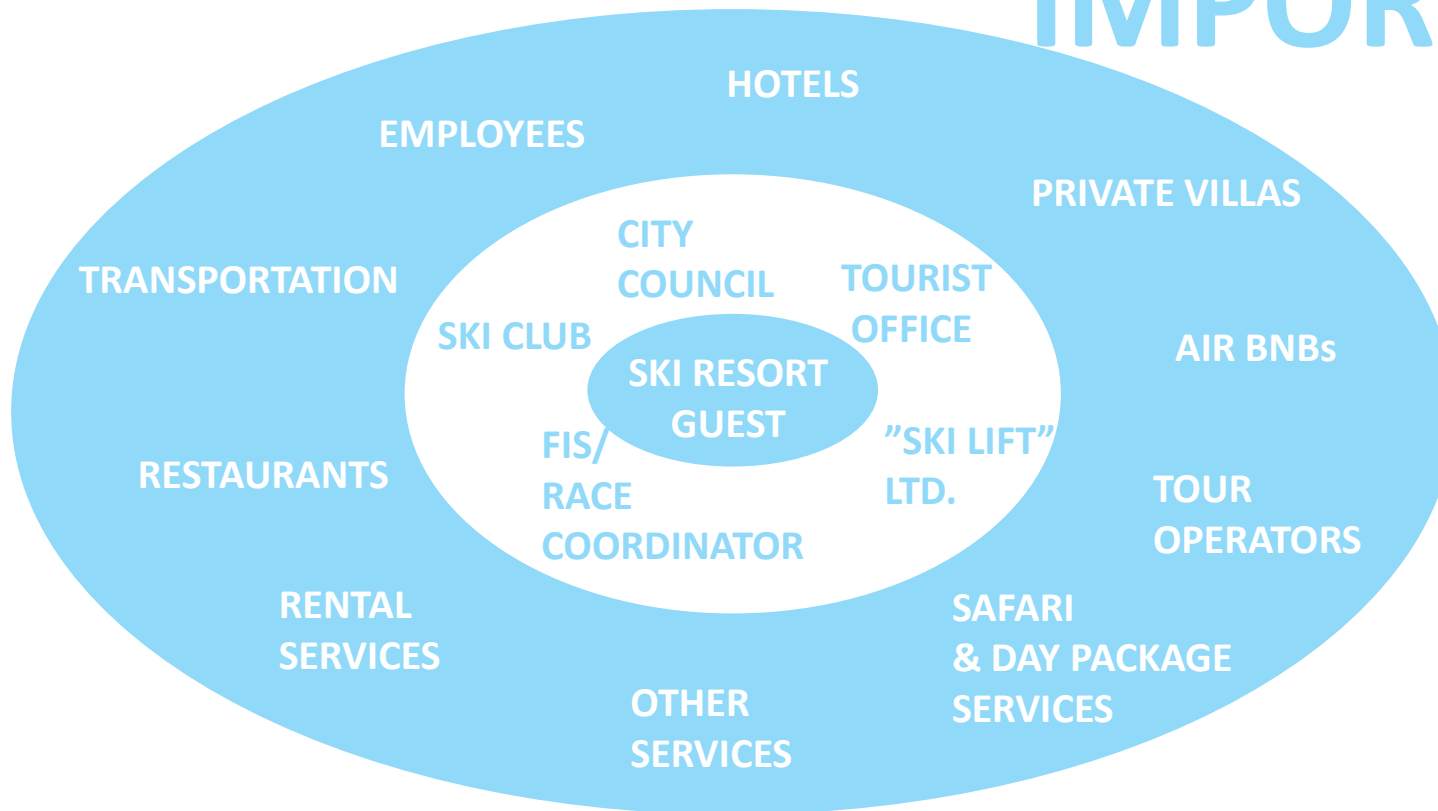
- Snow Secure is founded by "Snow Whisperer", Mikko Martikainen
- He was first person in the world to start snow farming in 2000
- Since that he has consulted snow farming in many ski resorts, also in Sochi Olympics.
- He invented and started patent process of first industrially made snow storage system in 2016.



**DOES YOUR SKI RESORT
HAVE A SNOW STRATEGY?**



SEASON START SNOW IMPORTANCE!





HOW TO DESIGN SNOW STORAGE?

1. SELECT SHAPE



CLASSIC



Space needed: 60 m in width, length can be chosen

PERFECT FOR LARGE SNOW QUANTITIES WITH BEST SNOW RETAINING RATIO

- IDEAL ALSO FOR CROSS COUNTRY SKI STORAGE
- SNOW CAN BE PRODUCED IN IDEAL TEMPERATURE ($< -10\text{ }^{\circ}\text{C}$)
- MINIMISES ENERGY CONSUMPTION WITH OPTIMUM SNOW MAKING CONDITIONS
- SAVES ENERGY AND WATER
- IN FLAT OR MAX 12 DEGREE ANGLE ON THE TOP



FAST



Space needed: 30m in width, length can be chosen

FASTEST TO OPERATE AS THE SHAPE ALIGNS WITH THE SLOPE

- FULLY BENEFITING SEASON END REMAINING SNOW
- "JUST-IN-TIME" SEASON START FOR EACH SLOPE SEPARATELY
- SAVES TIME AND MAXIMISES WATER PRESERVATION
- NO ADDITIONAL ENERGY CONSUMPTION NEEDED!
- ONLY OPTION IN THE MARKET FOR THIS USAGE
- GREAT OPTION IN SLOPES WITH MAX 15 DEGREE ANGLE





WHY SNOW SECURE SNOW STORAGE IS UNIQUE?

SNOW STORAGE SYSTEM IS NOW SCALABLE!



PATENTED STORAGE SYSTEM!

SCALABLE SOLUTION,
EVEN LARGE STORAGES



FAST ASSEMBLY!

ONE 10.000 CUBIC METER SNOW STORAGE CAN
BE COVERED IN SPRING IN ONE DAY AND
OPENED IN AUTUMN IN ONE DAY AS WELL



2 WORLDWIDE PATENTS + 2 PENDING

1. MULTIUSAGE;

SAME PRODUCT WORKS IN SUMMER AS SNOW STORAGE INSULATOR AND IN A WINTER IT HAS A SECONDARY USAGE FOR EXAMPLE IN A KIDS AREA OR AS ADVERTISING BOARD



2. FOLDABLE INSULATION MAT WITH PROTECTION COVER ATTACHED FOR QUICK SNOW STORAGE ASSEMBLY



MAXIMUM INSULATION

INSULATION MADE
BY LEADING
NORDIC XPS
MANUFACTURER,

SNOW SECURE IS:

FF PART OF
FINNFOAM GROUP

FINNFOAM[®]
INSULATION YOU CAN TRUST

Finnfoam is an XPS thermal insulation product made from extruded polystyrene, which retains its insulating capacity in even the most demanding conditions.



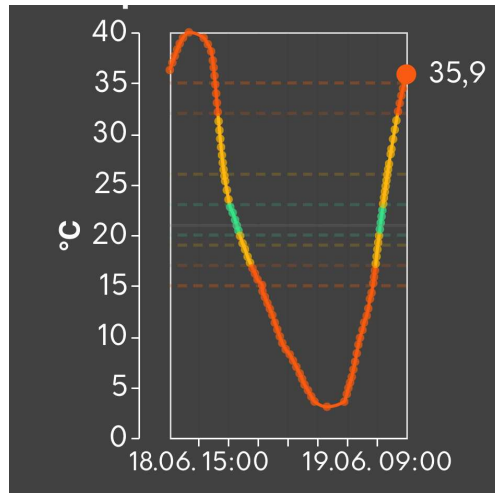
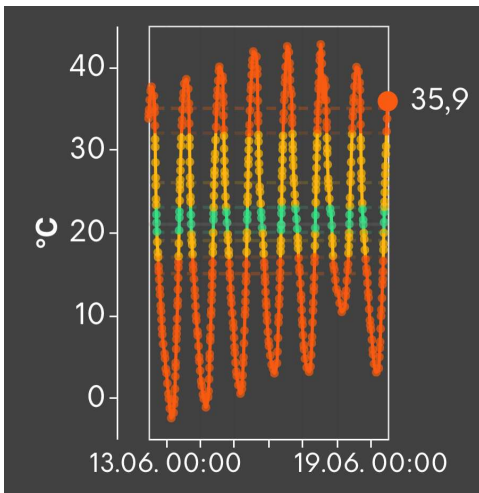
EXAMPLE OF INSULATION EFFECTIVENESS

1. TEMPERATURE MEASUREMENT IN VIHTI, FINLAND 13.6-19.6.2023

ON TOP OF MAT

Weekly maximum 44 °C, (air 29 °C)

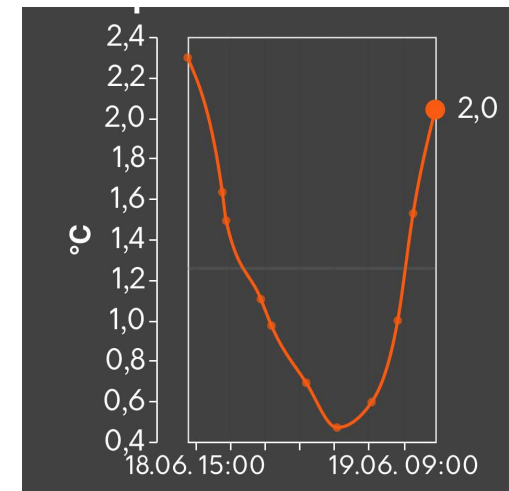
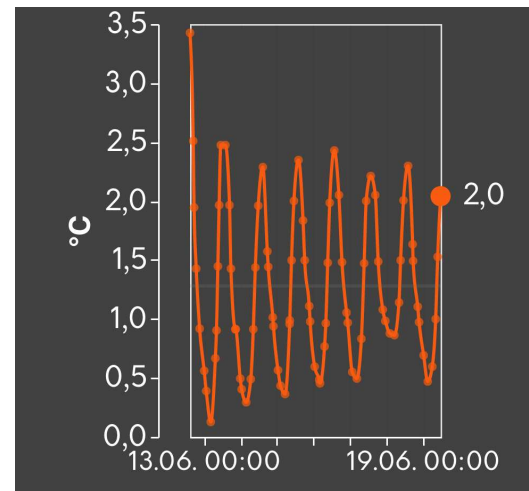
Day variation between 0 and 45



BELOW THE MAT

Weekly maximum 2,5 °C

Day variation between 0,4 and 2,4





SUMMER HEAT LOAD

LEVI SKI RESORT HEAT LOAD VRS TOBLACH IN SÜD TIROL

		SNOW STORAGE					SEASON OPEN		
LEVI	Summer Average	May	June	July	August	September	October	November	December
Maximum average °C	15,7 °C	11,2	17,4	20,5	17,6	11,8	3,6	-2,4	
Minimum average °C		1,5	7,4	10,5	8,3	3,1	-2,5	-9,3	
Rainfall mm		32	55	66	57	42	38	30	
Rainy days		12	14	15	15	15	16	17	
Sunshine average	214 monthly hours	238	278	260	183	112	61	19	
TOBLACH-DOBBIACO									
Maximum average °C	15,3 °C	11,7	15,7	17,9	17,7	13,6	9,7	4,6	0,5
Minimum average °C		4	7,7	9,5	9,7	5,8	2,3	-1,9	-6
Rainfall mm		146	157	160	168	151	157	150	111
Rainy days		17	17	17	16	15	14	14	13
Sunshine average	205 monthly hours	205	200	227	210	185			

Levi opens ski resort each year at 7.10.



WHAT ARE THE BENEFITS OF SNOW STORAGE?



**GUARANTEED
SEASON START
EVERY YEAR**



**WE GUARANTEE SNOW
IN FIS EARLY SEASON WORLD CUPS**



FIS World Cup
Ladies Alpine
11-12.11.2023



FIS Nordic
World Cup
24-26.11.2023



**REUSE THE SNOW FROM
THE PREVIOUS SEASON**



WE HAVE DOZENS OF SNOW STORAGE REFERENCES!

Levi resort in Finland
can start the season
every year at october 7th!

-

In 2023 Levi is forming over
200.000 cubic meters of snow
storages





CAN SAVE 50% OF WATER RESOURCES

Helps also to reduce other infrastructure investments:

- Snow making machines
- Water recycling pipes and storages
- Electricity cables
- Pump stations

And helps also the save in maintenance cost of these

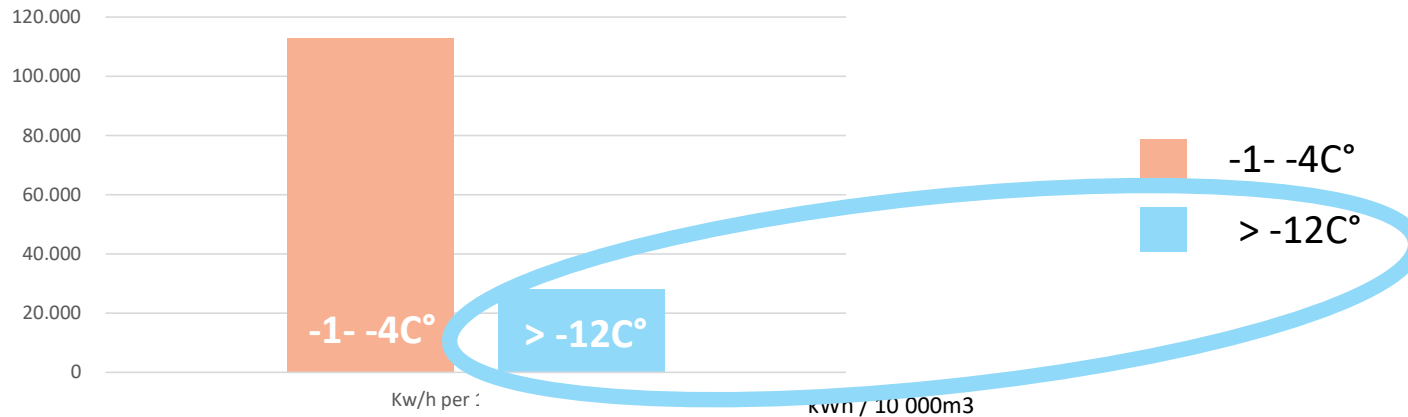


ENERGY SAVING POTENTIAL WITH SNOW STORAGES?



SNOW MAKING CAN BE MADE DURING OPTIMUM CONDITIONS

KWH USED WITH SNOW MAKING MACHINES TO MAKE SNOW 10.000 M2 SNOW - IN DIFFERENT TEMPERATURES



**ENERGY SAVING POTENTIAL > 85.000 kWh per 10 000m³
-80% Energy needed**

ENERGY CONSUMPTION COMPARISON

If making snow to start the season while temperature is between -1C and - 4C

VRS:

If making snow previous season when temperature below -12C while taking into account -25% loss of snow storage during summer

**SOURCE: SLOPE PREPARATION AND GROOMING
- A handbook for practioners
Page 54, 2018 by Wolfsberger, Rhyner and Schneebeli**



SNOW STORAGE ANNUAL TIMETABLE

EXAMPLE 10.000 CUBIC METER STORAGE

JANUARY
FEBRUARY
MARCH



Energy: 15.000 kW

Grooming: 1-2 days to form the shape

Snow Storage:

APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER



1-2 days 4-6 men



Minimum use needed

(vrs. 120.000 kW currently)

Snow groomed on slopes/tracks

1 day 4 men

SUMMARY OF KEY BENEFITS



**Guaranteed season
start every year to
increase profit**

**Reuse snow from
previous season**

**Saving water and
energy**

**Savings in snow
infrastructure
investments**

**Proven results,
dozens of references**

**Patented technology,
Industrially made**