

Wyssen Reference Project

# Digitization and Modernization of Avalanche Safety in the Golm Ski Resort



**Safety** through **innovation**

**WYSSSEN** switzerland **avalanche control**



## Digitization and Modernization of Avalanche Safety in the Golm Ski Resort

<b>Project:</b>	Integration of avalanche assessment and modernization of the Golm-Tschagguns avalanche protection system
<b>Place:</b>	Tschagguns / Golm Ski Area
<b>Country:</b>	Austria
<b>Year:</b>	Projects since 2022
<b>Customer:</b>	Municipality of Tschagguns / Golm Ski Area
<b>Protected Object:</b>	Ski resort, slopes, and safety-related infrastructure
<b>Installed systems:</b>	<ul style="list-style-type: none"><li>- WAC.3® Cockpit (incl. NxD Integration)</li><li>- WAC.3® Modules: Situation Assessment, Explosives, Piste inspection, Accidents</li><li>- 7x Wyssen Mini Towers LS6-5</li></ul>

### Initial Situation

The Avalanche Commission of the municipality of Tschagguns, together with the piste team of Bergbahnen Golm, is responsible for assessing the avalanche risk in the ski area. For several years, the SLF's NxD software played a significant role in the teams decision-making process. This tool enabled the comparison of current weather and snowpack conditions with historical data to draw conclusions about potential avalanche activity. With the SLF's discontinuation of ProTools and NxD in 2022, the Avalanche Commission was faced with the challenge of replacing an established and important decision-making tool. The commission also wanted to make the various work processes related to the avalanche hazard assessment and day-to-day operations more efficient and future-proof.



## Our solution

Wyszen imported the existing data and seamlessly integrated the proven NxD functionality into the WAC.3® Cockpit. This allowed the familiar interface to be retained while simultaneously embedding it into a modern, centralized platform. In a subsequent step, additional modules were implemented in WAC.3®, enabling the entire daily operational workflow to be digitally mapped.

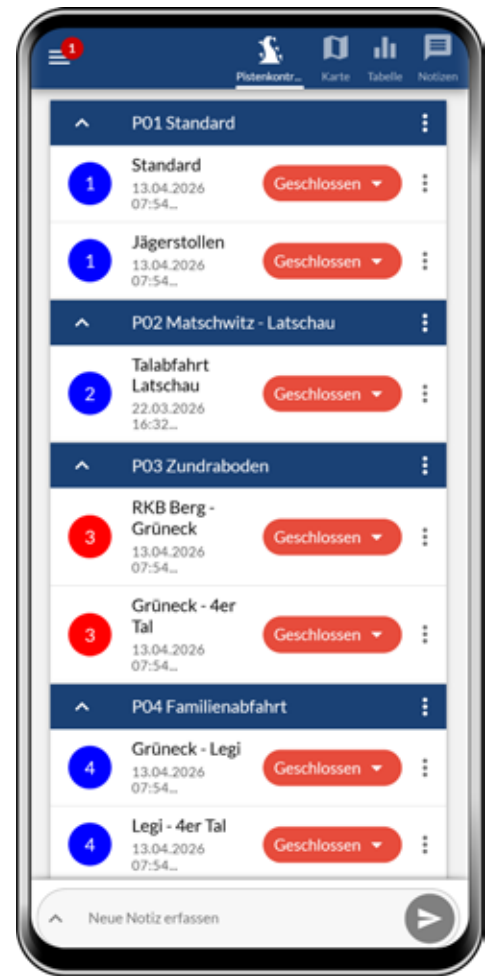
This includes situation assessment, explosives management, and documentation of slope inspections and accidents. The various pieces of information and processes are now centrally available, transparently documented, and easily accessible to all stakeholders.

In parallel with the digitization of processes, the Golm ski resort decided in 2023 to modernize its technical avalanche control systems. Existing detonation cableways and manual detonation points were replaced by a total of seven stationary Wyszen LS6 Mini avalanche towers. These enable fast and efficient, remote-controlled avalanche mitigation with increased workers safety and terrain availability for the ski resort. The combination of a modern software platform and innovative infrastructure creates a comprehensive, coordinated solution for avalanche safety in the ski resort.

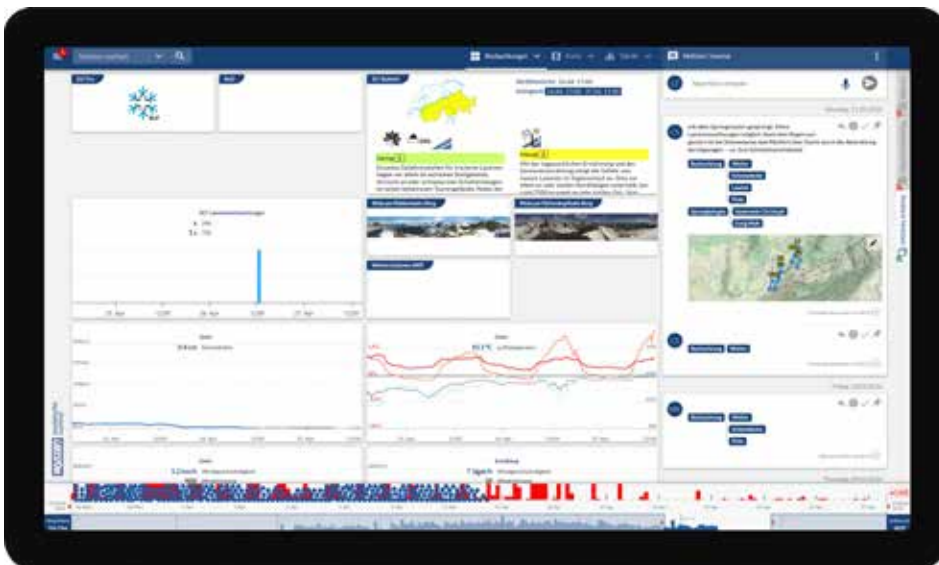
## Added Value and Outlook

Thanks to the close integration of digital situation assessment and technical avalanche safety measures, the Golm ski resort now has a forward-looking comprehensive system. Decision-making processes are documented in a transparent manner, workflows are efficiently organized, and safety-related measures can be implemented in a targeted and rapid manner.

The successful collaboration forms the foundation for further developments. In the future, additional functions and data sources can be integrated into WAC.3® to continuously further optimize avalanche safety and meet the growing demands in the Alpine region.



View Piste inspection in Golm / Tschagguns



Cockpit from Golm / Tschagguns





## A project of:

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