Effortless communication from the vineyard to the cellar.
A new era of communication has been established at Robert Weil: one of the most traditional wineries in the Rheingau area and a global symbol of German Riesling culture.

For over 150 years, the Rheingau wines of Robert Weil have been revered across the globe as some of Germany’s most superlative Rieslings and have earned the accolades of critics and wine lovers alike:

“The famous blue label of the estate has become the symbol of the highest quality of German wines. Only a few wine estates can boast such a continual and high level of overall quality.”
Michel Bettane and Thierry Desseauve, Great Wines of the World

“Weil is widely seen as the jewel of Rheingau.”
Jancis Robinson, The Financial Times

“Robert Weil has been one of the icons of German wine culture for many years. Nothing but the finest Rieslings are produced. And as more than 100 years ago, the wines are distinguished in terms of their origins and their style.”
Stephan Reinhardt, The Finest Wines of Germany

As the grapes ripen to the point where they can be refined to top wines, it is time - in the truest sense of the term – to bring in the harvest.

Good timing is one of the key factors for success and for the first time the team at Robert Weil are being supported by two-way radio communication to bring their wines to markets worldwide.

The new Kenwood digital system provides the instant and reliable communication between teams working in the vineyard and those at the winery necessary to ensure the perfect timing of the harvest and the efficient processing of the grapes when they reach their prime.

A public GSM network had been used for communication between the harvesting and winery teams while a wired intercom system was used for communication between the sorting and the production teams. This disjointed and unsatisfactory method prompted a review of communications with the aim of improving the efficiency of the harvesting and wine production processes.
Mr Philipp Bicking, Deputy Technical Operations Manager, initiated a trial at the Kiedrich production facility using CB radios. Mr Bicking reports: “Using CB radios turned out to be a bit of a disaster. The poor voice reproduction and flimsy construction of devices did not meet our requirements, but it did serve to prove that a two-way radio communication solution would be the way forward”.

Traditional crafts meet state-of-the-art technology

Mr Bicking took the opportunity to further investigate the latest professional mobile radio technology available and contacted the experts at Kenwood with a brief to design a digital radio communication solution tailored to work around the specific communication requirements of the winery.

After consulting with users and management, a UHF band antenna and fixed radio base station were installed in the main office building and Kenwood NX-3000 Series hand-portable radios assigned to users in the field. The NEXEDGE® NXDN™ system is configured to provide a dedicated radio channel for communication between the office and the tractor drivers during the critical grape harvest.

The drivers communicate with the pressing teams to announce the delivery of the grapes and coordinate the logistics around the production processes.

The new Kenwood NEXEDGE radio system is designed to accommodate user groups such as all tractor drivers or refinery staff but also to allow calls between individuals. Remote hands-free speaker microphones are used for individual users in the field to improve safety and productivity. Kenwood NX-3000 Series radios are IP67 rated against dust and water ingress which makes them ideally suited for the harsh indoor and outdoor environments of winemaking in which they must operate.

Digital Radio delivers the best Speech Quality

Digital radio offers the best speech reproduction and reception quality thanks to its advanced noise suppression and cancelling technologies. External noise sources such as machinery is filtered out and suppressed effectively. “Noise cancellation is a really important factor for us” Mr Bicking reports, continuing: “Delivery of the precious grapes to the presses calls for careful handling so as not to damage them. This is achieved by vibrating the delivery container to allow the grapes fall gently into the sorting hopper.”

Andreas Wenz, Foreman at the vineyard, reports: “The radios from Kenwood are robust and compact. We are able to operate them in all conditions be it cold, rainy or extremely hot.”

The third year apprentice, Matthias Göhlich, talks to the press operations team by radio to ensure that the correct volume of grapes is delivered to the presses.
This stage of the production process is very noisy. The new Kenwood digital radios cancel virtually all the background noise whereas with the old wired intercom system we could barely hear our colleagues. It really works very well, and the difference is remarkable.”

One of the other features of the new digital radio system that thankfully has not had to be put to the test is the Emergency Call function. When a user presses the emergency button, all remaining users on the same channel will be muted, the microphone of the radio initiating the emergency call will be activated and a call to the fixed base station will be setup. “We see ability for an emergency call to take priority as a major advantage in the event of an accident or a major disruption to the production process” comments Mr Bicking.

A fixed mobile radio has now been installed close to the hopper as it is better suited for the operating environment providing users with easy access to communication using the attached microphone and eliminating the risk of a portable radio accidentally falling into the machinery.

One of the other features of the new digital radio system that thankfully has not had to be put to the test is the Emergency Call function. When a user presses the emergency button, all remaining users on the same channel will be muted, the microphone of the radio initiating the emergency call will be activated and a call to the fixed base station will be setup. “We see ability for an emergency call to take priority as a major advantage in the event of an accident or a major disruption to the production process” comments Mr Bicking.

New developments to the system are being considered

Such has been the success of the new radio system that further applications have been applied; for example, providing the vital communication necessary between two tractor drivers working in harness when towing the single machine used to prepare highly compacted soil. “The radios have already proven to be invaluable in improving safety and efficiency and we are now considering adding a repeater to extend the coverage even further and using the system during plant protection work where it would be much easier if all colleagues could listen into a conversation. None of this would have been possible using our old communication methods” Mr. Bicking concludes.