

# 5G O-RAN: Upgrading Golf Course Experiences

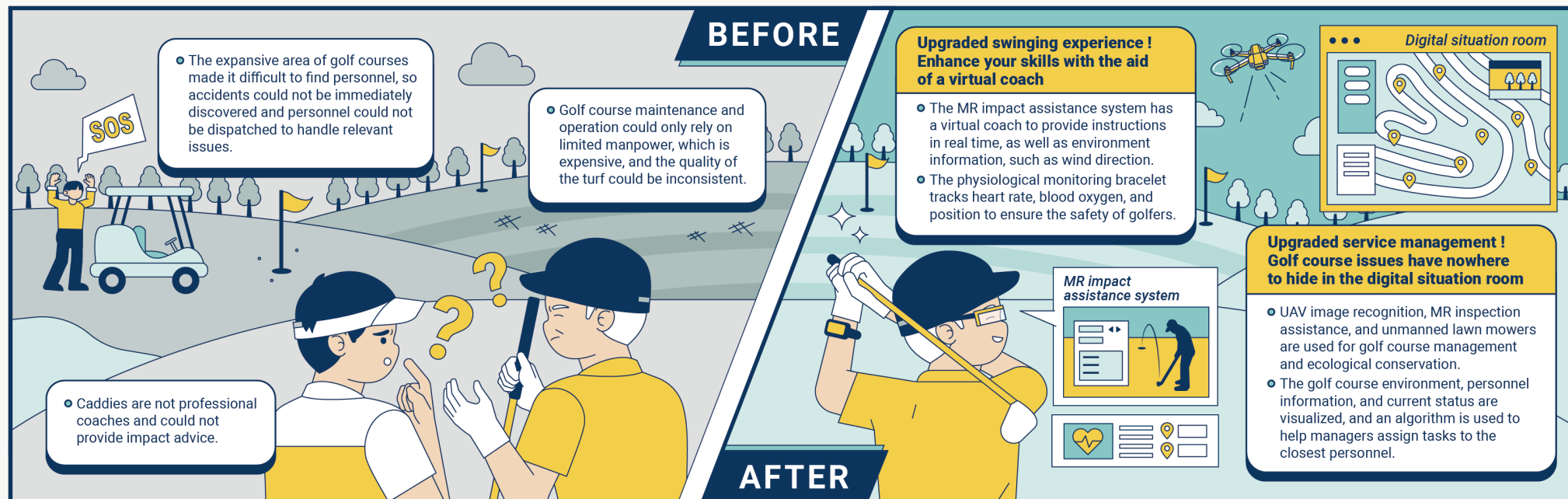
## Smart Operation and MR-Enhanced Golf Experience via 5G Network Upgrade

Golf courses cover a large area of land; therefore, comprehensive operation, maintenance, and management cannot be completed by manpower alone. Outdoor and mobile 5G can solve issues with hillside signal strength and insufficient manpower, not only improving service quality and operations management, but also incorporating ESG into the corporate culture by developing 5G sustainable golf courses.

### Project Results

**#First Case in Taiwan** | Domestically produced outdoor 5G O-RAN has the widest coverage, and numerous technologies of cross-domain applications have driven the digital transformation of golf courses.

**#Improved Work Efficiency** | Monitoring the condition of golf courses through UAV inspections combined with dispatching and situation systems has solved the labor shortage issue while effectively managing employee performance.



### BEFORE

- The expansive area of golf courses made it difficult to find personnel, so accidents could not be immediately discovered and personnel could not be dispatched to handle relevant issues.
- Golf course maintenance and operation could only rely on limited manpower, which is expensive, and the quality of the turf could be inconsistent.
- Caddies are not professional coaches and could not provide impact advice.

### AFTER

- Upgraded swinging experience ! Enhance your skills with the aid of a virtual coach**
  - The MR impact assistance system has a virtual coach to provide instructions in real time, as well as environment information, such as wind direction.
  - The physiological monitoring bracelet tracks heart rate, blood oxygen, and position to ensure the safety of golfers.
- Upgraded service management ! Golf course issues have nowhere to hide in the digital situation room**
  - UAV image recognition, MR inspection assistance, and unmanned lawn mowers are used for golf course management and ecological conservation.
  - The golf course environment, personnel information, and current status are visualized, and an algorithm is used to help managers assign tasks to the closest personnel.

**Key Technology**

# 5G O-RAN

# MR Impact Assistance System

# UAV Inspection

**Technology Unit**

DA-TUN CABLE TV CO., LTD.

**Domestic Trial Site**

Taichung city