



Steven Shorrock
Editor in Chief of HindSight

VIVE LA COMPÉTENCE!

This summer, we have been entertained by the world's best footballers – experts in the game. And it just so happens that Competency and Expertise is theme of this Issue of HindSight. What might we learn from World Cup 2018? Here are five observations.

1. Past performance does not determine future performance

Some world-leading teams, which were favourites to win, were knocked out early, or didn't qualify. It just goes to show that we can't rely on our record. Past success does not guarantee future success. The same tactics that worked in the past will not necessarily work in the future.

But we humans are creatures of habit. In his famous book *Human Error*, James Reason (1990) described two ways that we rely – or over-rely – on our past experience. The first is similarity matching. When a situation is similar to one experienced previously, we use pattern patching and tend to respond in a similar way to how we did before. The second is frequency gambling. More frequent solutions in roughly similar conditions will tend to prevail. Most of the time, these are efficient ways of working, and efficiency is critical when seconds count. But sometimes, we need to be more thorough, especially when preparing, practising and planning. In any case, we must always adapt to the situation.

Just as past success does not guarantee future success, past failure does not guarantee future failure. Penalties were a case in point. Far from being a lottery that is impossible to rehearse for, or an event for which some teams are 'jinxed', this year showed that extensive physical and psychological preparation for such high-pressure scenarios pays off.

This is something that I am particularly interested in within ANSPs. Front-line safety-critical staff need and deserve world-class training, especially refresher training. This isn't a luxury. It's a necessity, but the sort of necessity that sometimes becomes obvious only in hindsight. The same applies to team resource management training, and other training that integrates lessons from the past. The lessons that stick often come from past failures, but we need to learn those lessons in the right way, in the right context.

2. Teams are more than the sum of their parts...and success runs deep

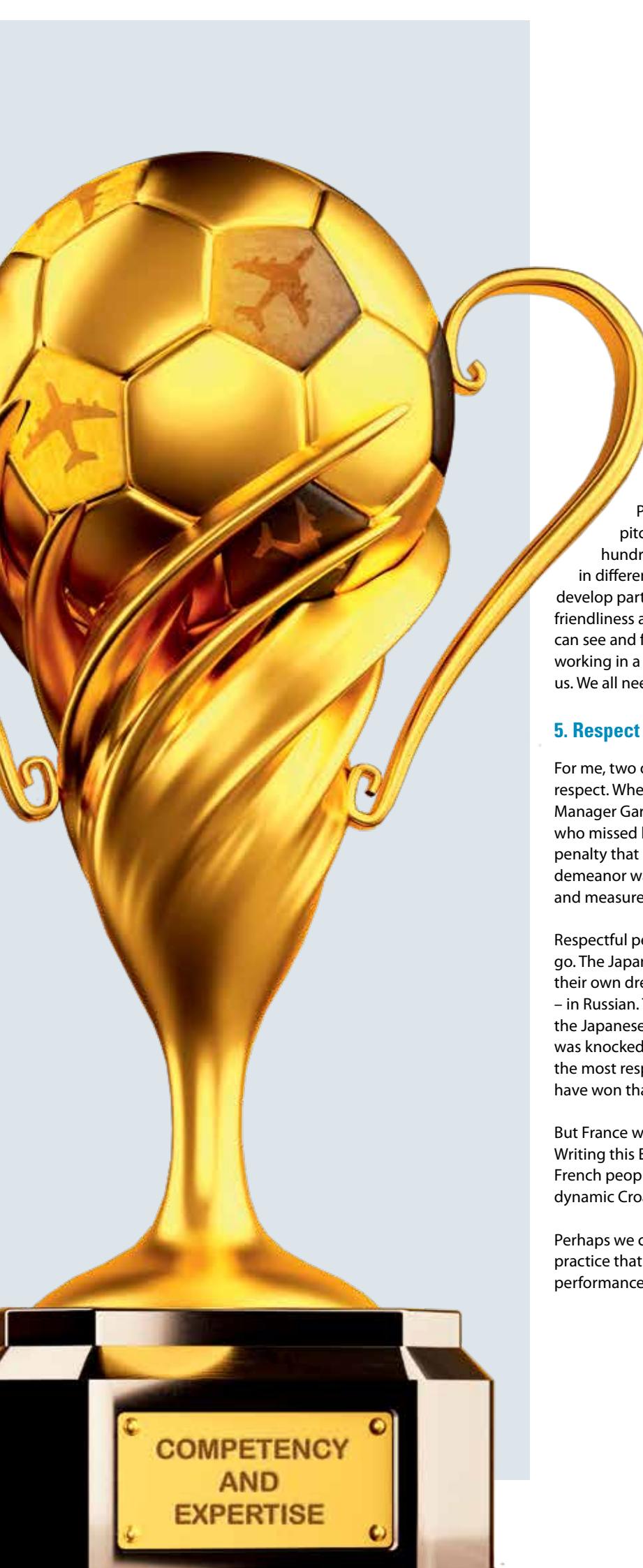
It became clear in this World Cup that individual expertise does not equal team competence. Teams can suffer through overreliance on star players, but can benefit greatly from teamwork bonded with trust, respect, and an understanding of how each player will respond in a given situation. The same applies in air traffic management. Here, we have procedures to help us predict how others will respond. But procedures do not determine how someone will respond. They do not even apply to all situations, nor prescribe all responses. In this case, trust built from working together helps us to succeed.

In the World Cup, the team is not just the players on the pitch. The best managers set up their teams to win, using all necessary resources, and adapting their style to whatever will bring out the best from each player. Everything is designed and managed for human performance. Hundreds more, including psychologists, dietitians, physiotherapists, etc, help players to perform at their peak. It is similar with ANSPs. While all have similar basic kinds of front-line support staff, some ANSPs have teams of qualified human factors/ergonomics specialists, psychologists, TRM facilitators, CISM peers, educational specialists, etc. Human performance is what we do, but to be sustainably successful, it needs a strong support network.

3. Technology changes the nature of work

The introduction of video assistant referee showed how technology changes the nature of work. Referees now have to use their expertise to decide when to use the technology. Overreliance ruins the spontaneity of play. Underuse may bring criticism that not only did a referee not spot a foul or offside, but that they didn't use a tool that could have shown this: two mistakes, where previously there would have been only one.

In *The ETTO Principle*, Erik Hollnagel discusses a fundamental trade-off that underlies human performance: the efficiency-thoroughness trade-off. Referees must balance efficiency against thoroughness to harmonise fluidity and fairness. Footballers do the same. If there is time to be thorough to set up a shot, then they will. If not, then they need to strike roughly on target. The right balance is clear in hindsight. For controllers, a very thorough approach to flight data recording with an electronic solution may result in too much head-down time. A very efficient approach may result in over-reliance on memory. The efficiency-thoroughness trade-off is a constant balancing act that is fundamental to the development of expertise.



4. Positivity helps (a lot)

Some teams, such as Belgium and Croatia, played with incredible self-belief and confidence.

Positivity permeates effective teams, on and off the pitch, even when things are difficult. Having spent hundreds of hours with different fixed ATC teams, and in different units, it is clear that different teams and units develop particular cultures or personalities. For some, fun, friendliness and positivity are hallmarks. This is something one can see and feel, as an outsider. We all know intuitively that working in a positive, joyful environment brings out the best in us. We all need to work on creating joy in work.

5. Respect is an attitude...and a non-technical skill

For me, two of the highlights of the World Cup were about respect. When England Won against Colombia on penalties, Manager Gareth Southgate consoled Colombia's Mateus Uribe, who missed his shot. Southgate was perhaps mindful of the penalty that he missed as an England player. Southgate's overall demeanor was not only respectful, but empathetic, supportive, and measured: a great role model for managers.

Respectful people carry their respect with them wherever they go. The Japanese team – consistent with their culture – cleaned their own dressing room, and left a handwritten note of thanks – in Russian. This courtesy is also a sign of pride in work. Even the Japanese fans helped to clean the stadium after their side was knocked out. Perhaps there should be a separate trophy for the most respectful team and supporters. This year, Japan would have won that trophy.

But France won the World Cup after a superb run of matches. Writing this Editorial from France, it was a pleasure to see the French people celebrate their victory, against a strong and dynamic Croatian team.

Perhaps we can learn from the preparation, planning and practice that went into the World Cup, supporting such expert performances. *Vive la compétence!*