



# INNOVATION

## USING SIMPLER AND BETTER IDEAS TO MAKE A DIFFERENCE



By Private William Steenholdt

**It's the application of good ideas to solve problems that defines innovation. These good ideas are rarely purely original and it is sometimes the application of old ideas in new ways which generates the most successful innovation.**

This is one of many learning experiences gained from my time working in Army Innovation as an intern through the Reserve Internship Scheme (RIS). The RIS is organised by the Directorate of Reserve Forces and Youth Development and applicable to Reserve Soldiers in their second or final year of university study. As a Reserve Soldier and in my final year of study at Otago University I applied as I saw it as a good opportunity to gain professional experience and insight into further careers in the NZDF. I was successful in my application and worked in Army Innovation from November 2016 to February 2017.

The key project that was chosen by Army Innovation for me to investigate was a magazine speed loader for range use. Magazine speed loaders are a classic example of an existing idea that when applied in new way can become an innovation for Army.

It is a long process to pursue perfection and that lengthy process can mean opportunities are missed where a 'good enough' product would have worked. Instigating a Minimal



Viable Product (MVP) approach to solve 80% of the problem as soon as possible gives a fast and ready solution. This is the current approach being adopted to drive Army Innovation. Once the MVP is in use the final 20% can be refined with trial and error. With this in mind an Army-made tabletop speed loader was the focus of the investigation, rather than a more complicated and costly commercial design.

Successful innovation is a team effort and was certainly so in the development of the tabletop speed loader. Trade Training School's Weapons Wing and The Army Depot both volunteered their own self-made loaders to assist in the design process; the Individual Service Weapon Replacement Upgrade Programme provided expert advice and loaned MARS-L magazines to assist with MARS-L compatibility in the design. School of Military Engineering (SME) supported the innovation development by building a prototype speed loader in December 2016 with particular effort from SGT Matt Smith and Mr Jason Fletcher who led the build and had a prototype completed in January 2017. The pilot evaluation for the speed loader was organised with the help of 25ESS, for their January Army Weapons Qualifications and, after final improvements as a result of 25ESS feedback, 1RNZIR conducted a confirmatory evaluation on Parsons Range in February 2017.

While the final design and supporting documentation is being completed, planning is underway to issue the Tabletop Speed Loader to units and ranges. The design is deliberately simple and can be replaced by units as necessary. With help from DLE and DLEM, a template of the loader will be uploaded to DIXS in the near future for unit

level production, aimed to reduce Army level support. User feedback identified that after initial use, soldiers quickly became comfortable using the loader and it became a well liked piece of kit. Once rolled out the loader's design will be continue to be refined through users' feedback and incorporated into the next version produced.

Thanks to the hard work of SME and other stakeholders this project has come through in record time. This is exactly what DCA, BRIG Chris Parsons, means when he refers to Innovation being about doing our work "simpler and better".

Harnessing our good ideas and developing an innovative culture is part of being an adaptive force in our 2020 vision. Good ideas and innovative solutions from our people, such as the tabletop speed loader, have never been rare occurrences but they are not always acted on. With command support, events like the Army Innovation Challenge and the New Zealand Defence Force Innovator of the Year, innovation is being actively encouraged and recognised.

It is not the first person to have an idea but those who apply it that it are innovative. Further promoting innovation and the application of ideas in the NZDF can save time, improve training, lead to new kit, and better protect our people. The Army Innovation Challenge is being run later this year so make sure you use this chance to put forward how we can do our business "simpler and better".

The next time you see an area for improvement at work share the problem and discuss a solution. Put these forward on either the Army Innovation Page, The Hub Ideas, or a brief email to [armyinnovation@nzdf.mil.nz](mailto:armyinnovation@nzdf.mil.nz)

## The recent winners of the NZDF Innovator of the Year and Army Innovation Challenge were:

- The 2016 New Zealand Defence Force Innovator of the Year MAJ Stuart Tylee, was acknowledged for his pioneering employment of an Acoustic Electronic Target System that displays the fall of shot on a tablet at the firer's mound. MAJ Tylee is currently working with Army Innovation to further develop the concept.
- Winner of the 2016 Army Innovation Challenge PTE (now 2LT) Campbell Smith was recognised for his idea of using drone footage to teach Dismounted Tactics, Techniques, and Procedures. This project is currently under development with Army Innovation.
- PTE William Steenholdt is an Army Reserve Soldier and a student in his final year at the University of Otago. He has been working with Army Innovation in Army General Staff for the summer through the Reserve Internship Scheme organised by the Directorate of Reserve Forces and Youth Development.



The speed loader is explained and demonstrated to soldiers

