

# HumanSystems® receives two IDEaS awards to develop better body armour for defence and security

## ***R&D on lightweight ballistic protection aims to keep soldiers safe without sacrificing comfort and performance for people in uniform.***

Guelph, Ontario, Canada, December 2018 — HumanSystems® Incorporated (HSI®) has received two funding awards totalling approximately \$400,000 through the [Innovation For Defence Excellence and Security \(IDEaS\)](#) program.

The two awards, each worth approximately \$200,000, will support defence and security projects by HSI® aimed at improving the safety and performance of military personnel.

The first project, Development of Optimized Light Weight Female Ballistic Plates, is focused on developing lightweight ballistic body armour to suit the needs of female soldiers.

The second project, Soldier's Reconfigurable Armour System Testbed, will develop and validate a reconfigurable armour system testbed that will inform future designs of modular, scalable body armour solutions that maximize protection without sacrificing comfort and mobility.

The IDEaS program was announced as part of the Government of Canada's national defence policy in 2017. The federal government and Department of National Defence committed \$1.6 billion over 20 years for IDEaS to support innovation and promote partnerships to address Canada's future defence and security challenges.

"The Canadian Armed Forces does not have any ballistic armour systems designed to fit female soldiers," said Harry Angel, HSI®'s principal consultant for the female ballistic plates project. "Current shapes of ballistic protective plates were designed for men, which can make the armour uncomfortable and impractical for female soldiers in the field. With more and more women serving in potential combat situations, the goal of this project is to develop advanced multi-curve ballistic body armour that will significantly improve the comfort, safety and performance of female soldiers operating in high-threat situations."

The shortcomings of body armour used by the military also affects male soldiers. In general, current ballistic protection systems are heavy, bulky, limit mobility, contribute to overheating, and interfere with natural body mechanics. "All soldiers deserve better", said David Tack, Vice-President of Operations at HSI®.

“There is a need for the Armed Forces to develop modular, scalable body armour solutions that maximize protection while minimizing adverse effects on a soldier’s mobility, task performance, and comfort,” said Tack. “Our goal is to develop a testbed that will be an important tool to assist future R&D programs in measuring the impacts of certain body armour designs on performance.”

The funding will cover the first phase of the projects, expected to last six months.

About HumanSystems® ([www.humansys.com](http://www.humansys.com))

*For more than 30 years, HSI® has been an international leader in human factors and human system integration solutions in sectors including defence, health and medical, occupational safety and utilities.*

*HSI® helps ensure the people in any system – whether individually or in teams – can work effectively, efficiently and safely for optimal performance, productivity and well-being. HSI®’s research, design, testing and training services focus on the fit between the technologies in a system and the capabilities of the people interacting with it for work or play. In this way HSI® helps product and system developers reduce risks, lower life-cycle costs and maximize return on investment.*