



**Company Name:** Elite Sports Performance

**Project Name:** Elite Sports Performance

**EI Funding:** 12 Month Innovation Partnership & R&D

Elite Sports Performance is an Irish company who has been involved in evaluating the fitness and agility of subjects through evaluating fundamental movement patterns using the Functional Movement Screening (FMS) approach.

Elite Sports Performance has developed a relationship with the GSK Human Performance Lab operated by GlaxoSmithKiline.



### PROBLEM TO BE SOLVED

Elite Sports Performance came to the TSSG with an interest in developing an automated way in which FMS could be used by evaluation subjects whereby they would perform the tests, be evaluated by software, and have sets of corrective exercises prescribed to them to allow them to improve their mobility, stability and flexibility and to reduce their risk of injury.

The GSK Human Performance Lab intrigued by the application of ExerScout. GSK tasked Elite Sports Performance to develop a feature that allowed the analysis of a persons' gait using the Microsoft Kinect V2. This new feature would then be compared to a state of the art 24 sensor treadmill that is available in GSK.

Elite Sports Performance tasked TSSG to developed this feature on the existing ExerScout platform. Further tests were also requested to be added including; standing analysis, balance analysis and sitting analysis.



### HOW GATEWAY DELIVERED SOLUTION FOR INDUSTRY

A complete Windows 10 application was developed in conjunction with the Microsoft Kinect V2 that can evaluate the 7 FMS tests, score each test, identify weaknesses and provide corrective exercises that will improve the scores given. The application also has a media section that contains footage on each of the seven tests and all the corrective exercises that are associated with each test.

ExerScout platform was modified to add the new features required by the GSK Human Performance Lab. These new features included four new tests, Standing Analysis, Balance Analysis, Gait Analysis and Sitting Analysis. Also new functionality was added to export data gathered of each test in CSV format, so it can be analysed outside of the application. The ability to record and playback data gathered from each test was also added to the platform.



### IMPACT FOR THE COMPANY

The client has received a new product that has opened a wide range of new customers, target markets and the geographical locations it can reach. The product is completely flexible and can be adapted for other exercises.

The platform was updated and it contains a series of new tests and features that can be used in conjunction with research, development and testing within the GSK Human Performance Lab. This has increased the strength of the relationship with GlaxoSmithKline, Elite Sports Performance and TSSG. Future work is in the pipeline for more features to be developed on the ExerScout Platform.