

Project Number	Project Name	Approved Applicant		Project Description	Maximum project funding
		Company	Contact		
KTTD-01A-2015	Developing GIS Software to Process Photogrammetric Point Cloud Data for Inventory Production	Lim Geomatics Inc.	Dr. Kevin Lim	This project will develop GIS software that will allow photogrammetric point cloud data derived from ADS40 imagery that have been collected by the province to be processed and used to generate forest inventory information products. This software will allow forestry stakeholders to leverage the: (1) investment that has already been made by the province with its image acquisition program; and (2) findings from airborne LIDAR point cloud research that has been conducted in Ontario over the last decade to further enhance forest resource inventories.	\$28,250.00
KTTD-06B-2015	Enhanced use of eFRI and wildlife habitat modeling to support forest management planning	MNRF	Drs Brown and Mallory	We will develop products that enable better use of eFRI and provincial wildlife monitoring data to support forest management planning. Our goals include using newly available and spatially extensive wildlife population data to develop or refine wildlife habitat models, identify the most useful wildlife indicator species for monitoring changes in managed forests, and to identify targets in population response to variation in forest condition. The work will include analysis at multiple scales, emphasizing Landscape Guide Regions, and explicitly link wildlife population indices with eFRI-based habitat targets established using simulated ranges of natural variation. Our products will be directly relevant for integration during planned updates to the Landscapes Guide planning tools and will permit greater efficiency and reliability in the use of eFRI in wildlife habitat assessment during forest management planning	\$155,036.00
KTTD-08B-2015	Upgrading eFRI with wood metrics	Lakehead University	Dr. Mathew Leitch	The purpose for the project is to determine if we can expand on the current data collection methodology for the eFRI to include wood attribute metrics and other forest services. We propose to measure approximately 125 eFRI lines of a selected forest study area, using our modified methodology for ground calibration and photo interpretation. We will determine whether the expanded field collection activities are operationally feasible and allow new Decision Support Tools technology (DST) to enhance the value of the forest resource for timber and other services.	\$190,915.00
KTTD-09B-2015	How reliable are stand stocking estimates? A comparative analysis on current and new methodologies	Confederation College	Keith Hautala	The project will investigate image analysis techniques to automatically estimate stocking values for various forest cover types from FRI imagery. The project will assess the accuracy of various methodologies for developing stocking estimates by comparing three approaches across sample strata as follows: 1) Standard FRI photo-interpretation; 2) Automated techniques using FRI imagery (ADS40 data); and, 3) Field sample plots (i.e. ground truth).	\$186,676.00
KTTD-10B-2015	Digital soil mapping for eFRI in Ontario's diverse landscapes	Canadian Forest Service	Kara Webster	Soils play a fundamental role in forest productivity and there is a need to better refine the soils information in the eFRI by supplementing the photo interpretation process. This project will both provide a strategic framework and demonstrate a tool box for applying digital soil mapping across different forested landscapes in Ontario. This will provide a baseline for developing a digital soil mapping strategy that can be used consistently across Ontario (rather than on a case-by-case basis), taking into account the diversity of landscape conditions within the province.	\$149,160.00
KTTD-12B-2015	iPad decision support tools for GLSL forest management	MITIG Forestry Services	Colin Arlidge	This project involves the use of commercially available iPad tablet hardware and software in order to develop decision support tools that link the eFRI to forest management and to operational planning for the Great Lakes St. Lawrence (GLSL) forest region specifically. This project includes components of GIS methodology for eFRI confirmation / validation, iPad application development for GLSL decision support and training. Significant in-kind contributions from the three partner SFLs are included. Data exchange with MNRF and technology transfer are cornerstones.	\$178,122.00
KTTD-14B-2015	Accuracy of eFRI ecosite and species composition	CNFER	Dr. Reid	Silvicultural Ground Rules (SGR) within a Forest Management Plan (FMP) are specific to forest species composition and ecosite combinations. Within harvest planned units, our objective is to determine the appropriate scale and approach for using eFRI multi-spectral imagery to accurately reflect variation in pre-harvest stand conditions in proposed harvest units. The intent is to improve the accuracy with which (based on ecosite and species composition) are delineated. Stratification based on imagery interpretation will be compared to field plots. Once the best scale is determined, and interpretive techniques developed, the knowledge will be shared with planning teams in the context of operational planning, monitoring, and SGR development	\$89,191.00
KTTD-17B-2015	Forest growth modeling in a GIS	Canadian Forest Service	Guy Larocque	This project has two objectives. The first objective aims at testing and validating ZELIG-CFS using pure and mixed historical stand data of Ontario's forests. ZELIG-CFS is a process-based forest growth model which simulates tree growth, mortality and regeneration to predict development patterns in forests. The second objective is to develop an interface between the succession (gap) model ZELIG-CFS, and eFRI data to predict growth and yield across a management unit over time, including changes in species composition, and to address biodiversity issues over management units.	\$81,671.00

\$1,059,021.00