



**Project No. 07- 020-13: Development of Biofibre Geomats for  
Temporary Civil Engineering Applications.**

## **Final Public Report**

**March 31, 2008.**

**Submitted to:** Composites Innovation Centre  
300 – 78 Innovation Drive  
Winnipeg, MB R3T

**Prepared by:** Richard Bueble, P.Eng.  
VP, Engineering



## 1 EXECUTIVE SUMMARY

Pildysh Technologies Inc., a Canadian owned, multiple-award winning, Alberta based product development company (established in 1987) has completed development of a soil reinforcing mat (called geomats) technology for the product line derived from Canadian grown hemp and flax biofibres. The developed technology serves as a foundation for production of a line of biofibre geomats capable of providing controlled, predictable ranges of mechanical properties and in-situ soil degradation rates.

The geomat products are intended for use in civil engineering applications requiring temporary reinforcement or reinforcement/filtration control of soil structures (such as temporary industrial or military roads and equipment foundations for example.) Currently, the market is served by imported, non-degradable, synthetic plastic products (i.e.: geosynthetics), not originally intended or designed for temporary applications.

The technology development project was complete as of March 30, 2008, with the intent of undertaking pilot scale project phases (field trials) and project commercialization phases, pending favorable field trial results.

Pildysh Technologies Inc. gratefully acknowledges the essential support of the National Biofibres Initiative, the Composites Innovation Centre and the Alberta Crop Industry Development Fund (ACIDF) on the project to date.