

FireBreakNet Business Plan Summary

Idea & Product

Wildfires are a major problem in South Africa, causing loss of life as well as massive damage to crops, grazing, infrastructure and environmentally protected areas. Fire damage can be radically limited if fires are detected early, allowing firefighting operations to quickly contain and extinguish a fire before it spreads.

FireBreakNet is a network of low cost, solar powered, wireless fire sensors that can quickly and easily be deployed in areas vulnerable to fires. The sensors will automatically send notifications to users in case a fire is detected. It will also allow general environmental data collection.

Target Market

The FireBreakNet system will be initially be targeted at small and large scale crop, timber, livestock and game farmers. Especially farmers in areas that are regularly affected by fires due to weather and proximity to busy roads and populated areas where fires caused by mostly negligence and arson.

Competition

Two products with similar markets are currently available in South Africa.

[AFIS](#) (Advanced Fire Information System) is a satellite based fire detection system aimed at clients with high value infrastructure and crops such as large forests. The system is limited by how regularly satellites pass over and area (15 minutes to a few hours) and the cost and process of getting the system fully implemented in an area.

[FireHawk](#) is a tower based camera system targeted mostly at large forestry clients. It requires large investment to construct the tower and install the advanced camera system and base station.

What differentiates FireBreakNet is cost and simplicity. The aim is to develop a system that is cost effective for the small scale client, yet can easily scale to large scale operations over wide areas. The system will be simple enough to not allow the client to install or expand the system on their own if they choose to do so.

Goals

The goals for FireBreakNet are as follows

1. Complete prototypes
2. Test and refine the system through rigorous field tests during fire season
3. Secure startup funding
4. Expand team
5. Select clients to implement pilot installations to do final assessments and receive feedback
6. Establish manufacturing, customer support, sales, marketing and distribution structures
7. Launch product commercially, build and expand client base through various marketing strategies

Marketing

Marketing will be done through the following avenues

1. Directly contacting potential client in identified high risk areas in installing small demonstration systems to proof the viability.
2. Advertising and promotional articles in established publications like *Farmer's Weekly*.
3. Product website and advertising on agricultural focused websites
4. Trade show stands

Sales

Sales will be done through multiple avenues. The product will be sold in agricultural retailers stores and online stores. Sales representatives will be used to introduce and sell the product to groups of potential clients in new areas.

Operations

Product development, customer service, final QC, assembly and packaging will be done in house. The following personnel will be required:

- Electronic engineer
- Software developer
- Business Manager
- Administrative person
- Sales representatives for sales and customer service
- Semi skilled workers for production

A large number of electronics suppliers are available for the required components. Production and assembly of the electronic PCBs and enclosures will be done by third party companies. A local PCB production company, as well as a injection moulding company has been identified that can handle production. An alternative is to outsource both these rolls to companies in China.

Start-up Team

Most of the initial product development and testing can be done part time by a two-man team. I am a mechanical engineer with background in research and development, and a interest in electronics and agriculture. A electronic engineer has recently been recruited to form the initial development team.

Startup Funding

The total required funding has not yet been estimated. Initially at least \$5000 in development funding will be required will be required to complete product development before final testing with commercial clients.