Problem

- Mining industry fatalities
- Trapped miners
- Miners accessing restricted/unsafe areas
Solution

Data has a better idea
How?

Combined hardware and software

Hardware
- Node which determines area/vicinity
- Wristband/device connected to battery pack
- Machine to machine connection
- Able to connect at sub megahertz and penetrate through rock
- Able to maintain a stable 9 meter connection below surface
Software

- Web application
- Accessible to anyone with administration rights
- Accessible remotely
- Access can be given to Fire/Safety Marshalls to assist with search and rescue
- Application is able to assign nearest rescuer to nearest trapped/injured/inactive miner
There is more...

- Data Analysis
- Access control
- Real time monitoring
Bonolo Molete
Electronics and robotics
Hardware

Sinethemba Ncede
Web and mobile applications developer
Software