
NASA
La Araucana
más cerca
NASA
INTERNATIONAL
SPACE APPS
CHALLENGE
GREEN COPPER
DYNAMICS
NASA SPACE APPS CHALLENGE

WHO WE ARE

Multidisciplinary Team - Final year students at the Universidad Técnica Federico Santa María

Bastián Rivas

Civil Electronic Engineering

Ma. Isabel Espinosa

Civil Metallurgical Engineering

Benjamín Sánchez

Civil Industrial Engineering

Denyzz Cárcamo

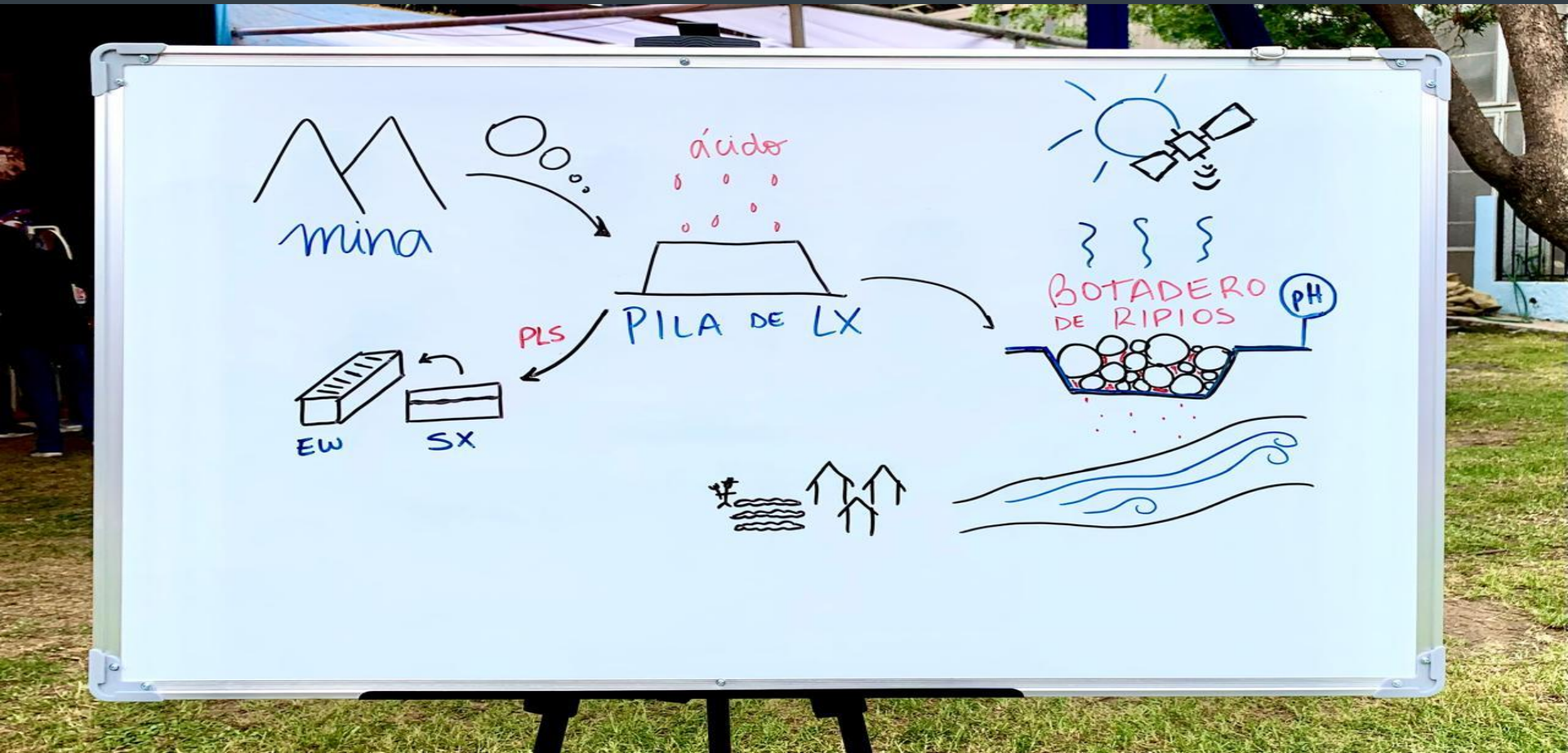
Civil Computer Engineering

Matías Sánchez

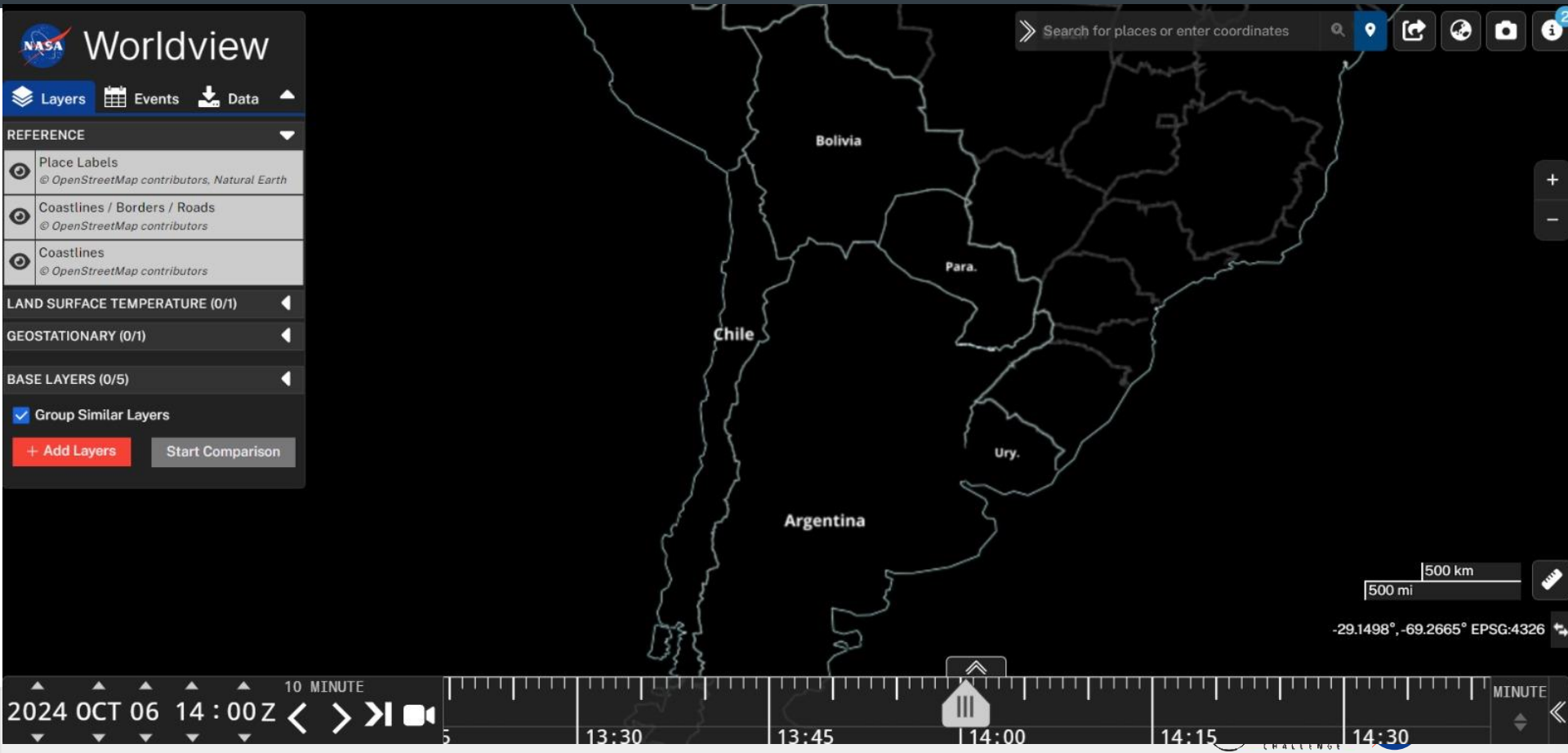
Civil Industrial Engineering

Our Challenge

URGENT PROBLEM – Community Mapping



URGENT PROBLEM – Community Mapping



GEOSPATIAL MAPS

Made with QGIS and NASA data.

- Acid mine drainage monitoring system using temperature and pH sensors.
- Integration of NASA satellite data to map and analyze critical areas.

Geospatial Temperature Mapping developed in QGIS with NASA data.

Cost Analysis
&
Corporate Social Responsibility

Capital Costs (CAPEX):
$20,750 USD

Sensors:
$5,750 USD
(50 sensors a $115)

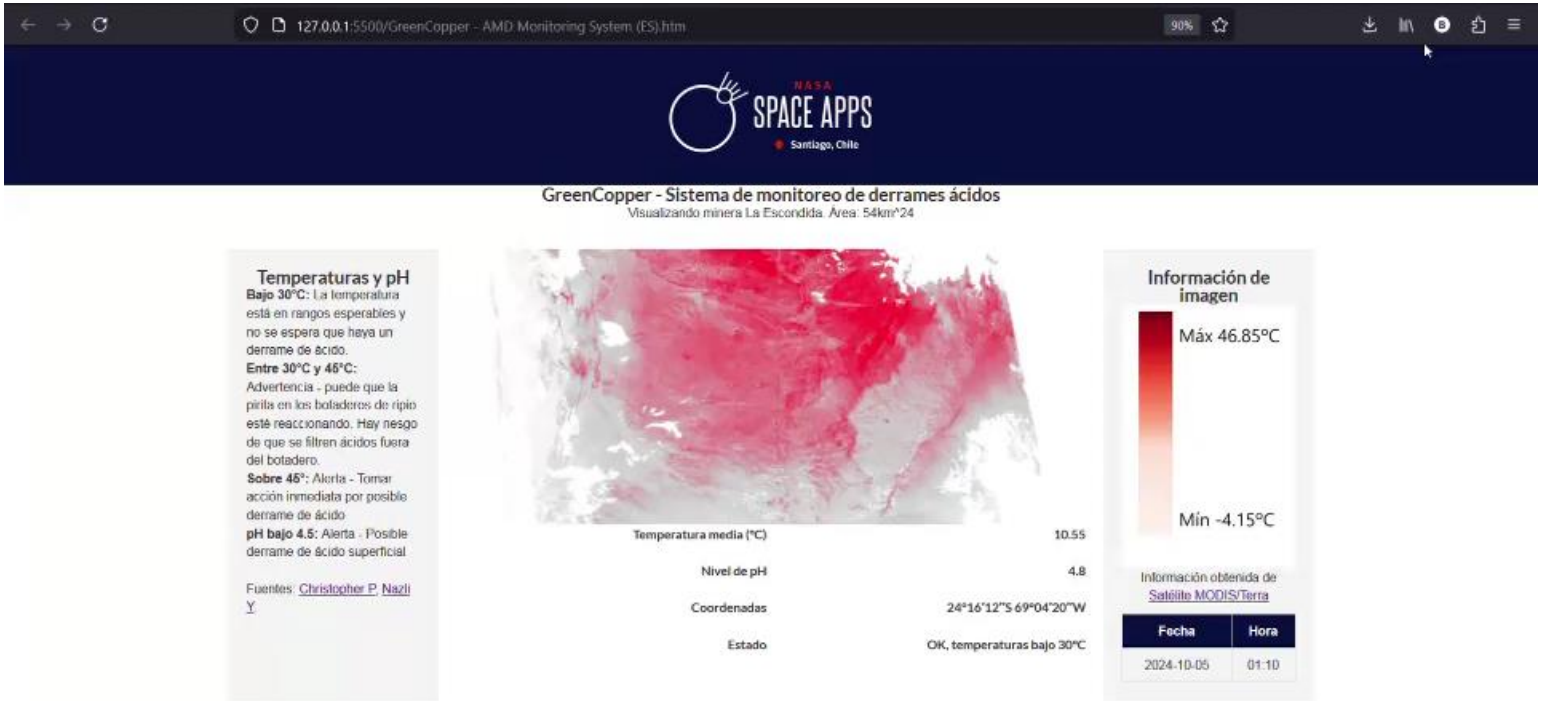
Base Station:
$5,000 USD

Installation:
$10,000 USD

Annual Operating Costs (OPEX):
$56,000 USD

- **Maintenance: $5,000 USD**
- **Dashboard: $1,000 USD**
- **Personal: $15,000 USD**
- **Training: $5,000 USD**
- **Energy: $5,000 USD**
- **Data Processing: $10,000 USD**

WEBSITE – GREENCOPPER DYNAMICS



THANK YOU FOR YOUR ATTENTION |

CONTACT US AND TOGETHER WE WILL LEAD THE **GLOBAL MINING VANGUARD**