

# NOVAMERA

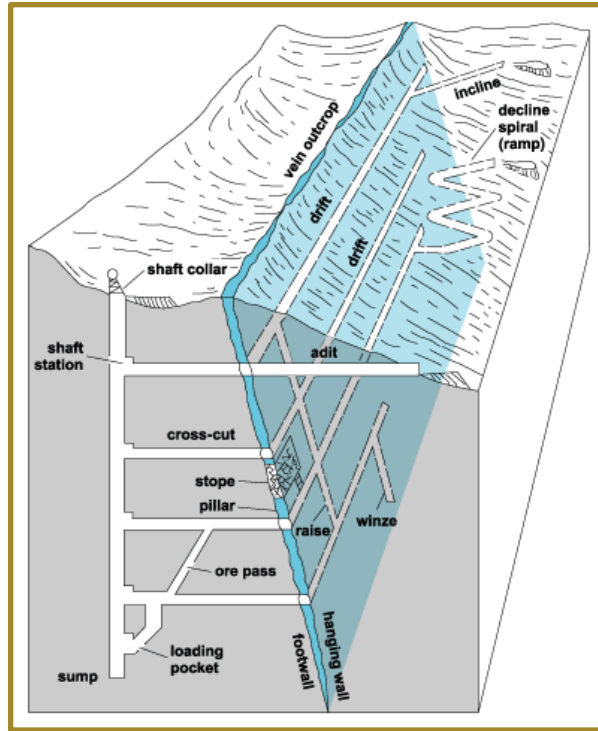
Unconventional technology. Unconventional value. Unconventional impact.



# Current Methods Fail Small Deposits

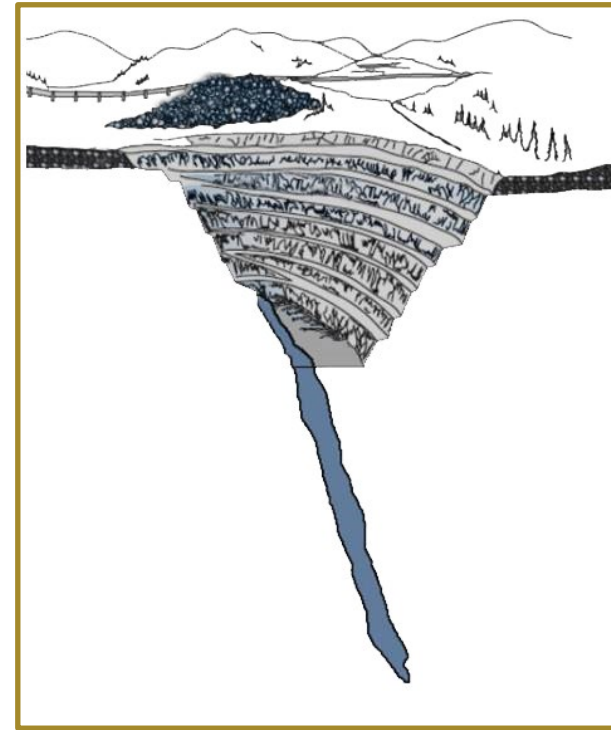
## Conventional Narrow Vein Mining: High Cost & Too Much Waste

Capex \$10's of millions



Underground

20x more waste



Open Pit

# Solution: Surgical Mining using Guidance Tools

## Near Borehole Imaging Tool (“NBIT”): Hardware, software and services solution

- High resolution vein identification and trajectory calculation



Proprietary navigation tool:  
Near Borehole Imaging Tool



Algorithms to identify host rock /  
mineralized zone interface



Software to calculate drill trajectory



# Solution: Surgical Mining using Guidance Tools

## Hardware and software to control large diameter drilling

- Novamera tools connect to third party large diameter drills

**Entry sleeve**  
Optimizes hole collaring



**IoT sensors**  
Production monitoring  
MWD



**Logic / Control systems**  
Steering



# Economic Value Proposition

- ✓ Unlocks uneconomic mineral resources
- ✓ Competitive operating costs
- ✓ Faster time to ore
- ✓ Lower upfront capex
- ✓ Reduces tailings facility costs
- ✓ Lower crushing costs



Novamera field trial site



# Climate Smart Mining Value Proposition

- ✓ 50% less GHG emissions and power consumption versus underground<sup>1</sup>
- ✓ Limited water usage / recycle
- ✓ No blasting
- ✓ No dust
- ✓ Less noise
- ✓ Re-use tailings

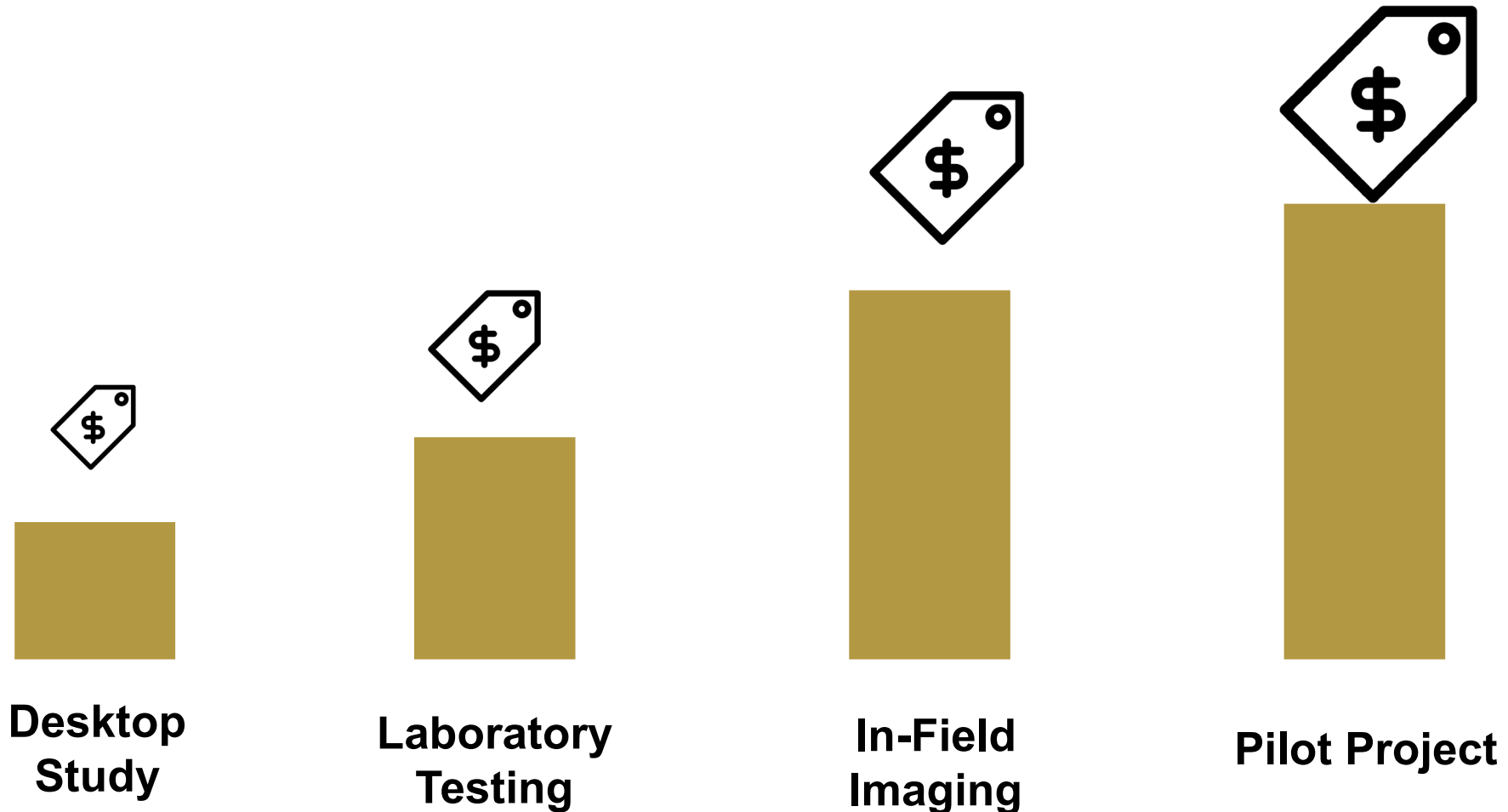


**Novamera field trial site in foreground; Anaconda open pit operation in background**

<sup>1</sup> – Study performed by Memorial University of Newfoundland. Compared SMD technology to the Costerfield underground mine in Australia.

# Engaging with Novamera

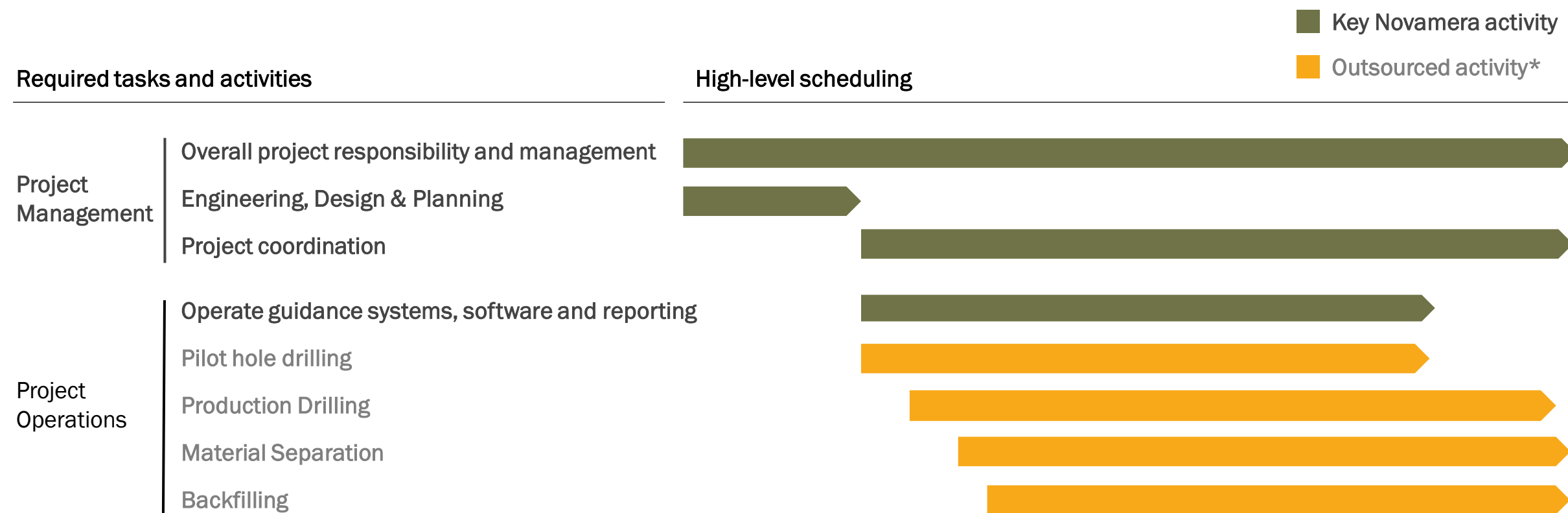
**Stage Gate Approach = Lower Customer Risk**



# Business Model

## Integrated service provider model

- Novamera will deliver a hardware, software and services solution to the operator



\*Experienced third-parties or client will conduct outsourced activities.



# Field Trial



NBIT deployed in core drill



Near borehole imaging tool ("NBIT")



NBIT Control Unit



# Field Trial





# Pile Top Drill Rig Modifications



**Modified Cutting Head with Stinger**



**Bottom Hole Assembly**



**Entry Sleeve**



# Modular Solution



**Pile Top Drill**



**Separation Unit**



**Separation Unit**



# Material Recovery



**Material from production drill**



**Material separation system with mechanical baffles**

# Take the Future of Mining in Your Hands

# NOVAMERA

**Generate new opportunities and create more value from you mining operations**

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# Management Team

## Deep Experience in Mining, Tunneling and Drilling



**Dustin Angelo**  
**CEO, Co-Founder & Director**

- 24 years of operating, capital markets and start-up experience
- Certified Public Accountant
- Gold, coal and aggregates



**Allan Cramm**  
**VP Innovation & Co-Founder**

- Over 35 years of managerial and operating experience in the mining industry
- Inducted into the International Mining Hall of Fame



**Andrew Caruana**  
**VP Product Engineering**

- Electrical engineer; 17 years of tunneling industry experience
- Started tunneling division at Smith and Long
- Designed new mobile, portable substation for tunneling



**Shannon McCrae**  
**VP Business Development**

- 20 years of experience in mining and exploration industry
- Former Director of Global Exploration for Barrick Gold
- Global corporate and field experience with Barrick and De Beers

