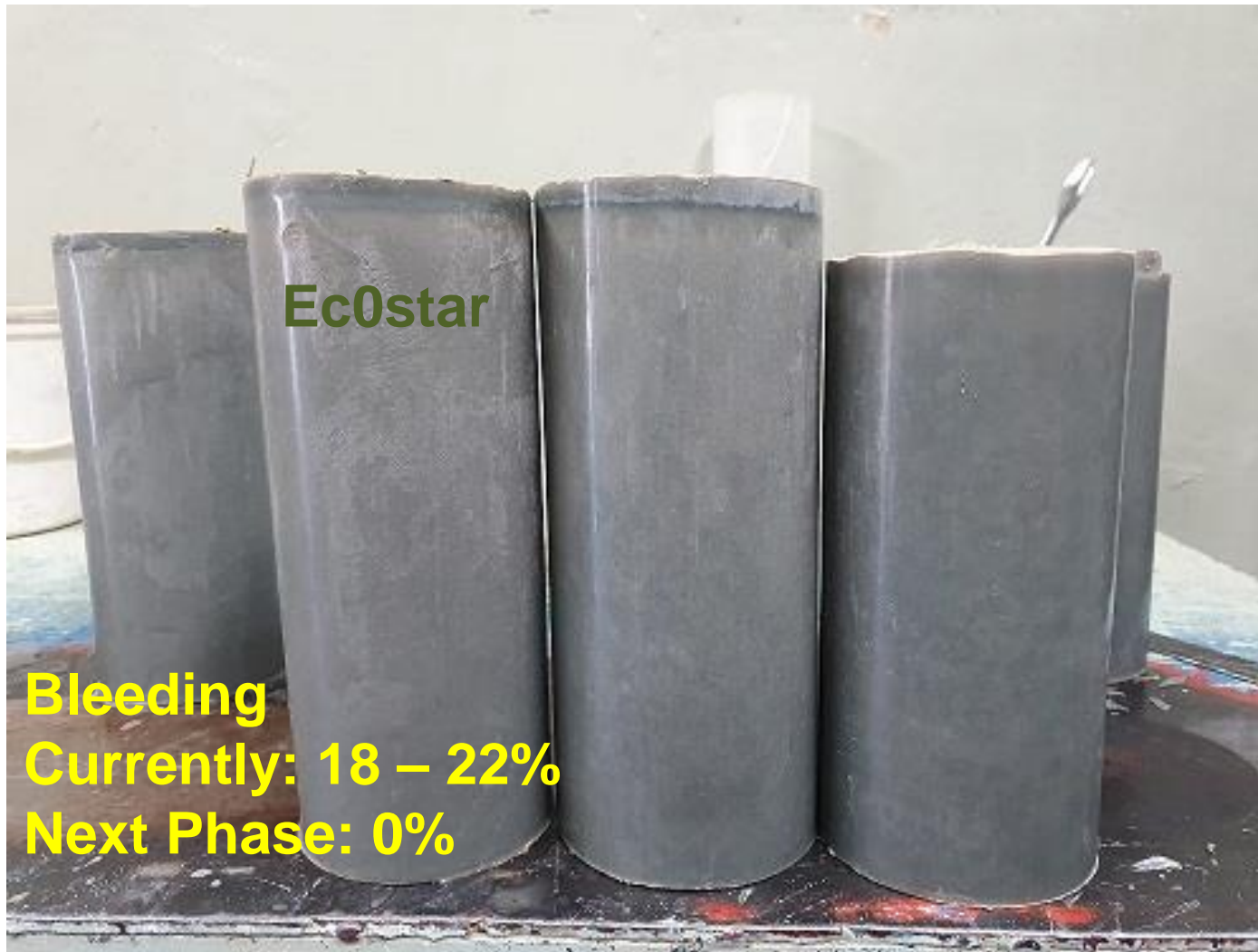


# **BACKFILL BINDER- ECOSTAR**

# Backfill



**Ec0star**

**Bleeding**  
**Currently: 18 – 22%**  
**Next Phase: 0%**

# Efficiency %

**The efficiency % per ton of Backfill placed is currently 80%.**

**Arc Innovations plan to have a 100% efficiency of placed backfill within 2021.**

# **Innovations and Improvement**

**ARC Innovations' technical department has initiated several development programs to improve on the current product.**

**The phase 2 product that we are looking to implement in 2021 will have a 0% bleed that is required to attain tight-fill and reduce the amount of water seeping through the rock or into excavations.**

**Further research and development has commenced on an improvement of strengths and stability.**



# Innovations and Improvement

**ARC Innovations are currently working on an underground Mine roads project to improve the transportation of material inside a Mine.**

**45%-55% of the material that will be used in the mix is currently sourced underground thereby reducing the cost significantly.**

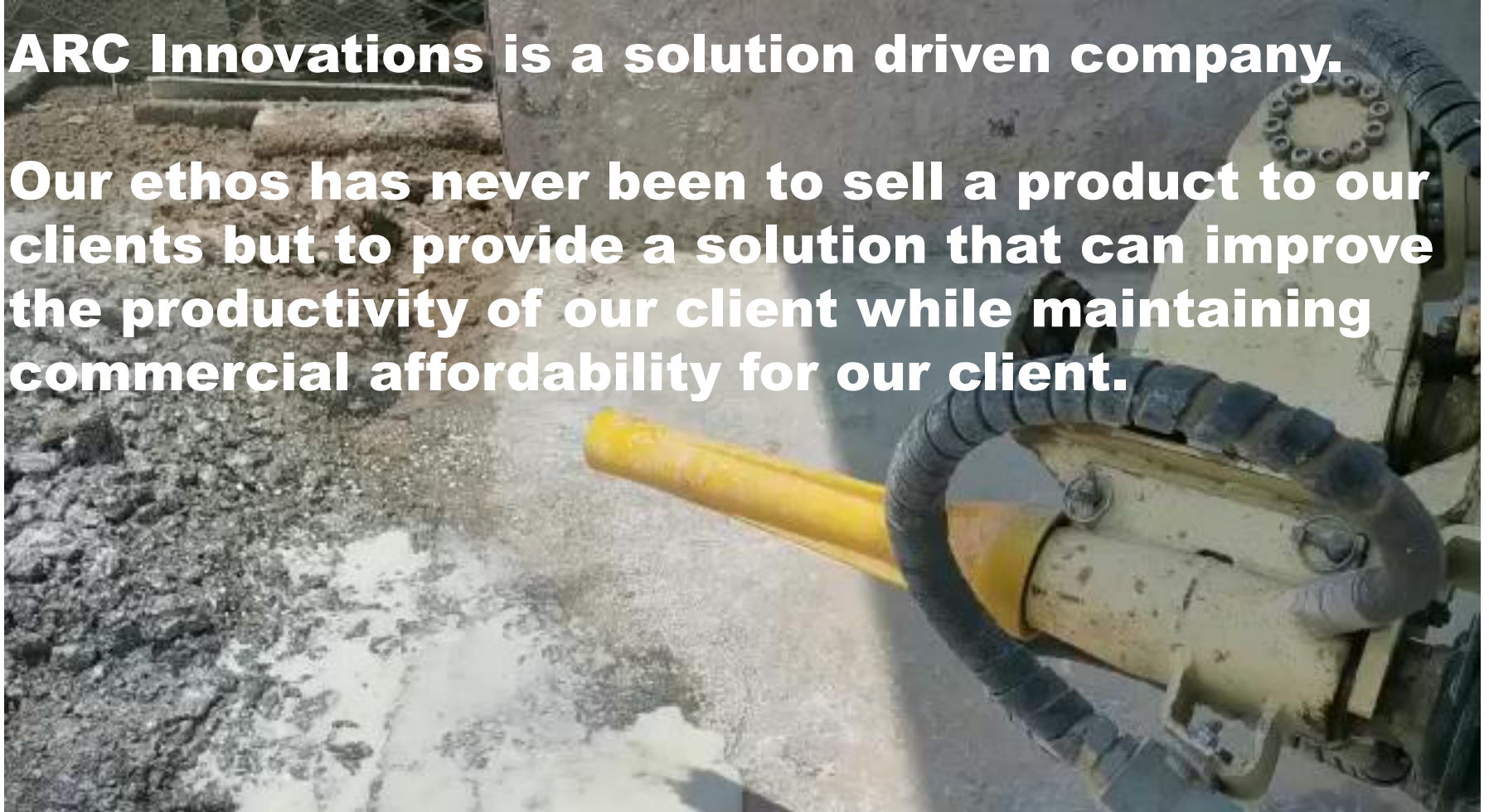




# Innovations and Improvement

**ARC Innovations is a solution driven company.**

**Our ethos has never been to sell a product to our clients but to provide a solution that can improve the productivity of our client while maintaining commercial affordability for our client.**



# Mining Charter Compliance

**There are several advantages of purchasing Ec0star in terms of the Mining Charter Compliance as Ec0star is a 100% locally manufactured product and ARC Innovations are a level two B-BBEE compliant company with 65% black ownership.**

**The inclusive procurement, supplier and enterprise development target is to procure 70% locally manufactured mining goods with a 60% local content.**

**The 5 year compliance target is 21% of total mining goods procurement budget must be spent on South African manufactured goods produced by Historically Disadvantaged Persons owned and controlled company that holds a weight of 5%.**

**The 5 year compliance target is 44% of total mining goods procurement budget must be spent on South African manufactured goods produced by BEE compliant company that holds a weight of 5%**

## Cost saving

**Due to the lower bleed of the Ec0star compared to the current product, there is an immediate cost saving of placed backfill underground compared to other backfill binders.**

