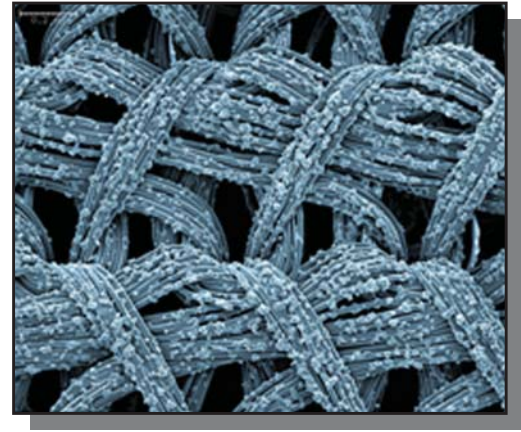


Expected Outcome from ProMine Research

The envisaged product is essentially based on the precipitation of copper contained in the acid mine water as nano-particles onto cellulose fibres. The process utilises two waste streams: water drained from the mine and paper and pulp industry waste, while creating a high value product.



Some facts

Mine Pyhäsalmi Mine OY
Owner Inmet Mining Co

Start of operation 1962 Expected closure 2018	Employees 218
Type of Mining Sublevel stoping or bench blasting or blasting with explosives	Host rock Volcanogenic massive sulphide deposit
Ore-genetic type Copper-Zinc-Pyrite	Product applications Base metals
Ore tonnage mined (end 2009) 45.5Mt Production (end 2009) 1.4Mt	Percentage of recycled input materials Sulphuric acid: 27% Backfill materials: 28% Water: 19%
Total amounts of overburden, rock, tailings, and sludge Total amount of permanently disposed tailings and sludge from effluent treatment: 14.4Mt	Total volume and percentage of water recycled and reused 1.037Mm ³ - 19%
Land owned/land disturbed 442ha/275ha	Distance from nearest town(s) The closest housing of Ruotanen village is 1km from the mill, while Pyhäjärvi town is 4km from the mine
Philanthropic contributions to the community 50k€	Main activities in region Agriculture, forestry and small industry

Core Team at Pyhäsalmi Model Site

Pyhäsalmi Mine Oy (PMO), Finland

Mine owner/R&D provider

Geologian Tutkimuskeskus (GTK), Finland

R&D provider

Valtion Teknillinen Tutkimuskeskus (VTT), Finland

R&D provider, Process Development

KWH-MIRKA

(MIRKA), Finland

New Product Manufacturer

ProMine Partners



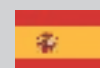
GTK, GEOLOGIAN TUTKIMUSKESKUS
PMO, PYHÄSALMI MINE OY
VTT, VALTION TEKNILLINEN TUTKIMUSKESKUS
MIRKA, KWH-MIRKA



BRGM, BUREAU DE RECHERCHES GÉOLOGIQUES ET MINIÈRES
INPL, INSTITUT NATIONAL POLYTECHNIQUE DE LORRAINE



BOLIDEN, BOLIDEN MINERAL AB
KEMAKTA, KEMAKTA KONSULT AB
LTU, LULEÅ TEKNISKA UNIVERSITET



IGME ES, INSTITUTO GEOLÓGICO Y MINERO DE ESPAÑA



CUPRUM, KGHM CUPRUM SP ZOO
 CENTRUM BADAWCZO-ROZWOJOWE
ECOREN, KGHM ECOREN S.A.
IMN, INSTYTUT METALI NIEZELAZNYCH



AGCMP, AGC MINAS DE PORTUGAL UNIPessoal LIMITADA
LNEG, LABORATORIO NACIONAL DE ENERGIA E GEOLOGIA, I.P.



GEOS, G.E.O.S. INGENIEURGESELLSCHAFT MBH
TU BAF, TECHNISCHE UNIVERSITÄT BERGAKADEMIE FREIBERG
WOLA, WOLA CHEMISCH-TECHNISCHE ERZEUGNISSE GMBH



SELOR, SELOR EEIG
TU/e, TECHNISCHE UNIVERSITEIT EINDHOVEN
CALDURAN, CALDURAN KALKZANDSTEEN BV



HG, HELLAS GOLD S.A.
IGME GR, INSTITUTOO GEOLOGIKON KAI METALLEFTIKON EREVNON
GM, ELLINIKI LEFKOLITHI ANONYMOS METALLEFTIKI VIOMIHANIKI NAFTILIAKI KAI EMPORIKI ETERIA



UNI WAR, THE UNIVERSITY OF WARWICK
BANGOR, BANGOR UNIVERSITY



IRMCo, INTEGRATED RESOURCES MANAGEMENT (IRM) COMPANY LIMITED