



# ORIZONT DESCHIS SRL.

COMPANY PROFILE

**“one man’s trash is another  
man’s treasure.”**

**- Hector Urquhart**

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# HISTORY.

Founded in 2015 and headquartered in Bucharest, Orizont Deschis is a 100% privately held Romanian limited liability company. It is privately owned by its two founders (89%) and four other shareholders (11%).

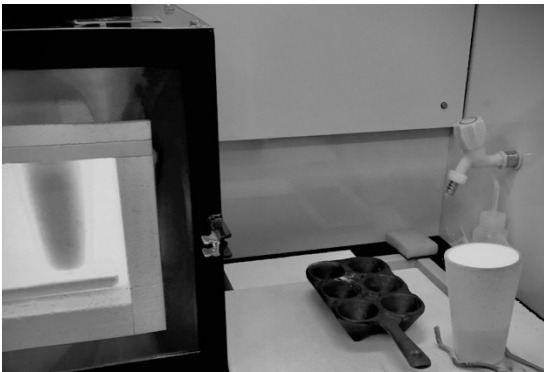
Orizont Deschis' purpose is to, in a commercially viable and environmentally friendly manner, clean up the pyrite ash waste problem in Romania. We utilize a proprietary technology to extract precious metals such as gold, platinum, palladium, rhodium, iridium, osmium and ruthenium from gold-bearing sands, and multiple waste piles generated from the production of sulfur and phosphate fertilizer.



# TIMELINE.

**2013**

It all started with our pilot plant in 2013 in Albuquerque, NM.



**2016**

Construction of our 5'000 square meter processing facility for the recovery of precious metals in Chişorani.



**2018**

Processing facility at full production.



**2015**

Orizont Deschis SRL is established with its headquarters and fire assay laboratory in 13 Strada Parfumului, Bucharest.



**2016 - 2017**

Environmental permits approved and permit N°9669 allows Orizont Deschis to extract, process, sell, buy, import and export precious metals.



# RECYCLING, REFINING, FUTURE.



Our operations reflect innovation, pioneering and environmental responsibility.

We are among a handful of companies world-wide that have the methodology to enable an accurate evaluation of Precious Metals and Platinum Group of Metals within pyrite ash waste piles. More critically, we can transform head ore that is classified as hazardous into a form that can be safely stored, transported and sold.

## RECYCLING

Our extraction techniques emphasize environmentally responsible solutions to recover precious metals and platinum group of metals. Virtually all materials we work with are “regenerated” and used repeatedly within the production cycle. This reduces the environmental impact of the chemicals we work with and enhances recovery levels. Our technology is proven to reduce sulfur and arsenic levels present in our feedstock below the threshold required by the EU, and that required by the Romanian Government for monitoring of hazardous materials.

## REFINING

Aside from our in-house capability, Orizont Deschis has partnered up with multiple refineries for further processing our mineral concentrates.



## FUTURE

Based on our analysis, research and melting operations, we will be expanding our refinery operations by building a stand-alone refinery using plasma furnace technology for the recovery of precious metals and platinum group of metals from our unconventional and refractory ores.

This expansion will allow Orizont Deschis to address current technical limitations and provide a way to increase both the annual tonnage of material being processed and the recovery rates of the key precious metals species by:

- A commercially proven technology with a track record of reliable and successful operation.
- Industry-leading PM and PGM recovery efficiency.
- Tight environmental control, achieving low emissions in compliance with local environmental regulations.
- Low noise generation and almost zero water use.

## Friendly “Green” Gold

80% of the world's primary gold production comes from industrial mining. About 27% of the total annual gold demand is covered by recycled gold.

Orizont Deschis uses a non-toxic extraction technology to substitute conventional processes using cyanide (or other toxic substances). This enables the extraction of gold while meeting increasing demand for gold without cyanide. Also, where cyanide is not yet banned, projects are being stopped due to opposition to the use of cyanide, being a highly toxic reagent for both human health and the environment. At a social level, there is increasing pressure on politicians to reduce the costs on the environment from the mining industry.

Orizont Deschis has been identified as a “Green Gold” producer. “Green Gold” is not perceived as a brand but rather as a general term for ecologically sound gold of which the origins are fully documented and independently validated. Green Gold is sourced only to the highest standards of environmental stewardship, Health & Safety, and human rights of their labor force.

Recycled gold is the prime example of resource efficiency and closed loop recycling management with a far lower carbon footprint than traditional mining.

We believe that the PM market is ready for a change to sustainable gold, and that we must seize the opportunity now to communicate this to end customers because it is not only a question of where the precious metals come from, but also how this can be achieved through a recycling process.









# POLLUTION / SOLUTION.

Over the past century millions of tons of pyrite ash waste remain throughout Eastern Europe. This presents a significant environmental hazard, with both airborne and groundwater contamination being present at the industrial sites.

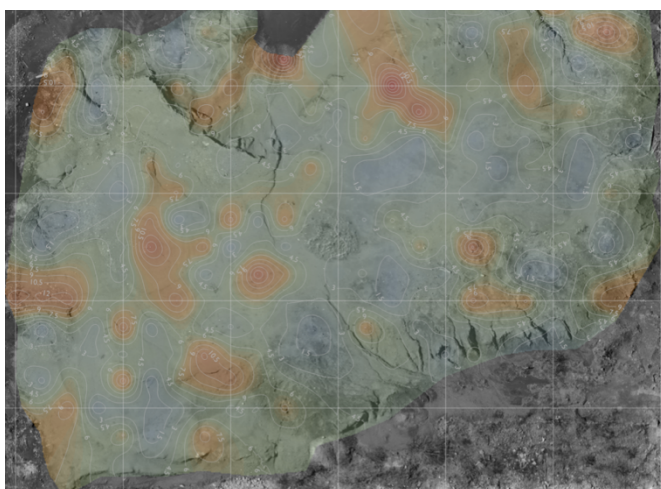
Our mechanical process is environmentally benign and transforms, through the production process, 99% of the tailings by mass either being separated and commercialized as precious metals or platinum group of metals, or safely recycled as an environmentally benign source material for different industries.

# CEE PROBLEM.

Industrial facilities across the former Soviet Union and its satellites utilized a standardized method for the extraction of sulfur dioxide from pyrite ores to produce sulfuric acid and sulfur fertilizer. This method utilized the Contact Process to pass high-temperature, molten sulfur, derived from ferrous sulfate, through platinum-coated catalyst beds.

A side effect of the industrial process described above has proven to be a concentration of precious metals created by two independent processes:

- Roasting and oxidation of sulfate-rich pyrites containing precious metals; and
- Physical wear on the surfaces of the platinum-coated catalyst beds.



## DETECTION

The accurate measurement and detection of precious metals within pyrite ash waste is an extremely difficult problem.

Our proprietary methodology enables accurate evaluation of the waste piles. This allows us to confidently screen waste piles from different facilities to establish their economic potential and allows us to differentiate between low and high-value processing targets within individual waste piles.



# TECHNOLOGY



*Chițorani processing facility*

Orizont Deschis uses a technique based on a mechanical separation, with all processing being done in solution form. This significantly reduces environmental risk and enables the creation of precious metals and platinum group of metals bearing concentrates based on material specific gravity.

The resulting concentrate is around 15% by mass of the input material and consists of iron oxide with refractory precious metals and platinum group of metals particles along with silicates containing free-milling Au, Rh, Pt, Pd, Ir, Os and Ru.

## DESIGN

The core technology was designed by our team and has been optimized since to maximize the recovery of PM from pyrite ashes.









# OUR OPERATIONS.

Both Orizont Deschis headquarters and fire assay laboratory are located in Bucharest. The processing facility is in Chițorani, situated 75 kilometers north of Bucharest.

The Bucharest laboratory is one of a few fire assay laboratories in the CEE region, allowing use an accurate, industry standard tool for the detection and measurement of gold-bearing ores. Daily quality control is a critical tool in the development of new recovery techniques. Further, Orizont Deschis is building a state-of-the art ICP-MS (Inductively Coupled Plasma Mass Spectrometry) to enhance our in-house capabilities and ensure that the products we process have maximum sales value.

# INNOVATION.

Orizont Deschis has invented a technological process that allows us to concentrate the precious metals found within pyrite ash. This methodology results in the creation of a mineral concentrate many times higher in recoverable gold value than the original head ore.

Moreover, we have created a system to recover the precious metals and platinum group of metals from the mineral concentrates produces. Current operations are focusing on scaling these developments to produce in-house dore for sale.



## SERVICES

Besides recycling and processing its own tailings from multiple Romanian sources, Orizont Deschis offers third parties a comprehensive recovery solution, enabling the use of an environmentally benign process to recover precious metals and platinum group of metals from difficult ores.

## HEALTH AND SAFETY

The main capital of a company consists of the people working within it. Occupational health and safety is an absolute priority at Orizont Deschis. We take pride in being a family that creates, builds, and innovates. External health and safety training is provided to ensure team member well-being, and we invest in all appropriate safety gear as a primary corporate expense.

## IN-HOUSE DESIGN

Research, development, and ongoing improvement are integrated into our daily operations. This approach focuses on continuous innovation and provides Orizont Deschis with a critical and crucial competitive industry advantage. Our team designs and builds all key factory components in our on-site workshops. This reduces costs, optimizes operations, and protects our intellectual property.







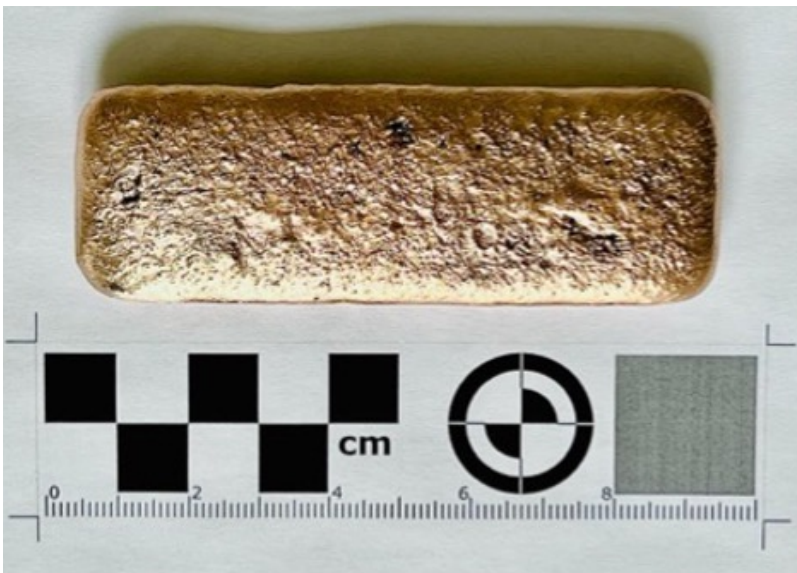
# KEYS TO SUCCESS.

Orizond Deschis is a well-established company with a strong track record of creating shareholder value. The company's founders have a wealth of experience and a wide network of contacts, and the company has made significant investments in equipment, land, buildings, and research and development. It has signed several lucrative contracts with key players in the precious metals industry and is well positioned for continued growth and success.



## KEYS

- ESG best practices.
- Social Responsibility.
- Clean-up of polluted sites.
- Recycling of wastewater reduces the environmental impact and enhances the recovery levels.
- External health and safety training is provided.
- Continuous investing in people.
- Employee diversity targets.



## SUCCESS

- Substantial environmental clean-up objective to provide a solution to clean up industrial slags and tailings.
- Environmentally friendly remediation process, with the principal output being compliant source material for several industries.
- The capture and monetization of “green gold”, where gold is recovered at less than 0.1% of the energy and costs associated with traditional mining options.
- Fully private sector owned and contracted.

# CONTACT.



## HQ

13 Parfumului Street  
Bucharest 030841

Romania

T +40 372 927 372

Registration Code

RO34311109

Trade Registry

J40/3932/31.03.2015

## FACTORY

39 Strada Mihai Viteazul  
Chitorani 107112  
Prahova County

Romania

T +40 787 777 755

## LABORATORY

13 Parfumului Street  
Bucharest 030841

Romania

T +40 765 463 920

Registration Code

35637708

Trade Registry

J40/1965/11.02.2016

[www.orizont-deschis.com](http://www.orizont-deschis.com)

[info@orizont-deschis.com](mailto:info@orizont-deschis.com)