

# MEET THE MAESTROS

WITH A VISION TO TRANSFORM THE INDUSTRY THESE EXPERTS HAVE NEVER SHIED AWAY FROM A CHALLENGE. TODAY WE CELEBRATE SOME OF THE MOST AWE-INSPIRING LEADERS OF THIS INDUSTRY



**“IT IS THE SOLEMN DUTY OF EVERY DEVELOPER TO KEEP DELIVERING BEST IN CLASS STANDARDS TO THE CUSTOMERS” SAYS JITIN MUKHEJA, GENERAL MANAGER, PROJECTS AND SALES AT GEOBRUGG INDIA PRIVATE LIMITED**

## **1. Can you share your company’s key milestones with us?**

Geobrugg has been pioneer in innovation, research & development of key solutions pivotal in setting industry standards. Owing to this ideology and program Geobrugg’s recent development/ key-milestone was the invention of the toughest and strongest rock-fall barrier in the world, RXE-10000, that could sustain an impact absorption energy of up to 10,000 KJ.

India has already received its first RXE-10000 in 2021, that now firmly stands on mountainous stretches of Malshej Ghat, Maharashtra.

Apart from the technological inventions in the field of rock-fall barriers, slope stabilization products, debris-flow barriers and avalanche prevention structures, Geobrugg is expanding into monitoring systems, and therefore systems like AVYX, ROCYX, DEFOX are a part of new direction towards ensuring better protection and mitigate natural threats to the maximum possible extent.

## **2. What was the need gap that you identified and how did you go about developing this solution?**

The need gap is a momentarily term and we believe it can never be filled, the gap is still there and quite wide frankly. In the field of science and innovation the gaps never get filled, R&D never stops and that is basically the driving force that drives every innovator and industry leader to achieve more.

## **3. How has the usability of your product/service offering evolved over the years?**

We started with one specific system type and then the other segments that were unexplored 60 years ago

seemed quite challenging and demanded rapid growth and innovative solutions that could deliver protection and safety. Through determined association with some of the leading universities and world-boards in these segments we were successfully able to test systems that defined safety. Many of our designs, manufacturing equipment and in-house softwares were developed to design systems according to the need of the sites.

## **4. What advice would you give to newer players entering this market?**

The technology in the field of offering deserved safety to the people, community and infrastructure needs to be tested and must be backed with due recognition and trust from the competent authorities.

That is the solemn duty of every developer to keep continuing forward with that trust and keeps delivering best-in class standards to the consumers, which is the ultimate aim.

## **5. Has covid -19 revamped your worldview? Has it impacted the way you do business?**

Covid-19 situation has certainly impacted the growth and business and forced everyone to rethink how to realign with the present situation, that is the clients’ demands & consumers’ needs.

Situation in every country is different at the moment, some are slowly coming out of it and thriving while some are struggling hard. The availability of resources, movement of the masses, transport facilities, government funding & almost every related segment has taken a hit. Sadly, when due to all of this the building and core costs have gone up the sales and turnover values have reduced worldwide, in general.



**“WE CONSTANTLY WORK WITH OUR CLIENTS TO MAKE SURE DISASTERS ARE AVERTED EVEN BEFORE THEY OCCUR”** CONVEYS ASIF KAZI, MANAGING DIRECTOR AT PIONEERS FOUNDATION ENGINEERS PRIVATE LIMITED

### 1. Can you share your company’s key milestones with us?

Pioneer Foundation Engineers Pvt. Ltd. started with a vision to bring revolutionary changes in the geotechnical engineering sector which includes Survey, design solutions and execution, subsequently, we expanded in the geohazard mitigation sector. The year 2013 was a milestone year for us when we carried out protection and treatment of slopes on tracks of Shri Mata Vaishnodevi Shrine Board Katra, J&K, in the most difficult circumstances, both in terrain and climate. The slope and rockfall protection work on Mumbai Pune Expressway was another milestone for us. We are among the big-league executors in India for geohazard protection works. We are the first and only company in Asia to install a 10,000-kJ dynamic rockfall barrier. The location was in Malshej Ghat Maharashtra. Another milestone for us was the construction of 102 meters high, the highest hybrid retaining earth wall in India at Tindharia, West Bengal.

### 2. What was the need gap that you identified and how did you go about developing this solution?

Though we had several geohazard product companies supplying their products in India, we observed a huge gap in execution capabilities. We realized the potential and developed our skills and expertise in execution to quickly make a name for us as a leading turnkey solution provider. We constantly strive to improve our capabilities by investing in the skill development of our workforce and newer technologies.

### 3. How has the usability of your product/service offerings evolved over the years?

I believe that averting a disaster is more important than managing a disaster. Hence our focus has been on the Predictive approach more than preventive measures. We constantly work with our clients to make sure disasters are averted even before they occur.

Over the years, our focus has been on the productivity and effectiveness of our solutions. Today we take pride in making a statement that we use top of the line machinery and deliver the solutions at par with global players.

### 4. What advice would you give to newer players entering this market?

(Laughs)..

I don’t know if the new players need my advice. But if you insist, my single statement is “Be responsible”

To elaborate the point, this Industry is a part of nation-building, we should focus on Sustainable Development Goals. It is paramount to create a mark in every work you do but do not compromise quality for smaller gains. The responsibility is far too great to outweigh business benefits. It took our company years to be where we are today and when I look back, what brought us here is the credibility, we created at each work.

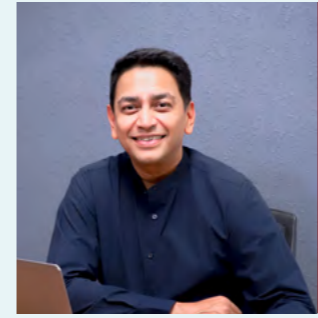
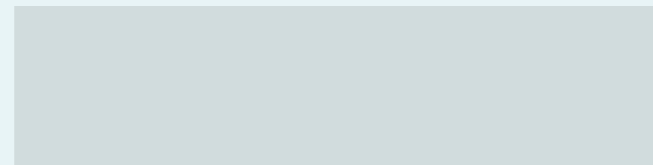
### 5. Can you throw some light on your company’s plans?

Pioneer is in talks with some partners in the Middle East and African regions for potential expansion. We will prefer to take calculated risks, invest in geotechnical engineering technology, workforce improvement and explore newer markets. We are also investing in some innovative approaches in GIS solutions that can revolutionize infrastructure development.

### 6. Has covid -19 revamped your worldview? Has it impacted the way you do business?

Yes. Personally, it has made me realize, the fact that there are a lot of things that cannot be controlled by us, humans. Also, a realization that we all can be more responsible and make this world a better place for future generations.

At Pioneer, all our staff other than the people at project sites have been working from home during this pandemic period. We have enabled our digital capability to ensure the participation of everyone even though they were not present in the office. We have ensured that the mental health of our people was maintained and that every ongoing project site followed strict COVID -19 protocols. We conducted Vaccination drives for staff and family.



**“DEVELOPMENT AND SUSTAINABILITY MUST WORK HAND IN HAND TO ADDRESS FUTURE CHALLENGES”** EXPRESSES VIKRAMJIET ROY, HEAD OF INDIA AND SOUTH EAST ASIA PACIFIC REGION AT OFFICINE MACCAFERRI

### 1. Can you share your company’s key milestones with us?

Over the past two decades, we have crossed over many breakthroughs in the industry. Despite the challenges we faced, we have positioned ourselves as the pioneers of solution providers for complex civil, geotechnical, mining, and environmental engineering projects. With our understanding of the dynamic infrastructure industry, we have completed over 1200 critical and strategic civil projects in India. The most recent highlight has been the completion of the landslide mitigation project in Lambagarh. Our sustainable civil engineering has ensured the safety of NH-58 road located in Uttarakhand. NH-58 is a significant highway as the road leads to one of India’s most notable holy shrines, Badrinath. We worked on implementing the reinforced soil wall (maximum height of 44 meters) with gabions as a fascia (Terramesh® system) and high strength geogrid (ParaLink®) for reinforcement across a stretch of 500 meters. A flexible pavement has been constructed as part of the same project. The stones and backfill material were locally sourced. Winning the national competitive bid, we worked together with the Ministry of Road Transport & Highways, to design a solution to counteract the destabilizing forces in a highly landslides and rock-fall prone area while improving the safety and quality of the roads.

We engineer sustainable solutions after profoundly analyzing the geographical conditions, terrains, and the need of the hour. Advancing on this aim, Mac Armour was developed with the sole purpose of reducing the exposure to risks for workers in rock-fall prone areas. Another addition to our innovations has been POLIMAC, designed to achieve the technical performance demands of hydraulic, geotechnical, erosion control and environmental protection projects.

Our unique solution, Hellomac, developed to monitor rockfall protection has been conferred with The Best Innovative Product Award at the 19th Asian Leadership Award. The alert system ensures safety, reliability, and accuracy, this easy to install and provides real time protection

against the risks. We have also accomplished creating a safe, healthy, and nurturing environment for our employees at our workplace. Our employee-friendly work culture earned the valuable certificate of ‘India’s Best Employer’ from Great Place to Work for the second consecutive year. We aim to holistically achieve many such milestones in the future as well.

### 2. What need gaps did you identify in the market and how did you manage to bridge those gaps?

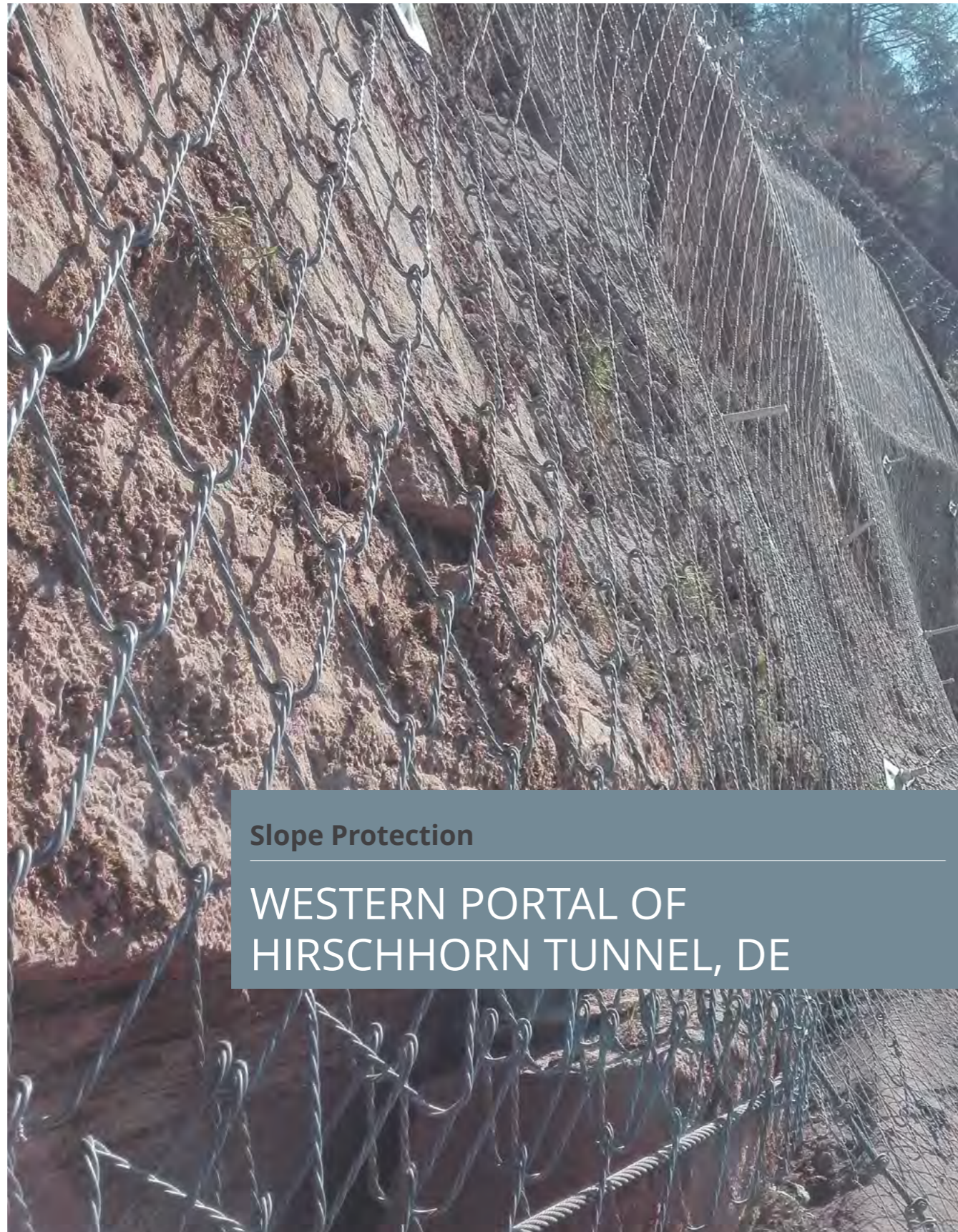
Indian market lacked a sustainable perspective when it came to building and developing its infrastructure. To add to the shortcomings, the lack of technical expertise to execute projects, limited awareness, expensive equipment and products, and funding to pay for improvements remained the biggest barriers to adopt the sustainable model. The industry required more future-ready solutions that were environmental-friendly and addressed sector-based challenges.

At Maccaferri, we worked on designing not just products but also solutions that were diverse and catered explicitly to sectors such as Transportation & Urban Infrastructure, Environmental Protection, Mining, Emergency & Flood, Energy, Military, River Control Works, etc. Every solution that we innovate is engineered after an in-depth understanding of market requirements. Adding to the positives, the environmental benefits of Maccaferri solutions compared to the traditional ones includes:

- Re-use of ‘site-won’ materials
- Re-vegetation and integration into the natural environment
- Reduction of site waste by creating bespoke materials

Our comprehensive portfolio of solutions includes Gabions, Geosynthetics, rockfall and avalanche protection systems, green solutions, specialized steel wire products that were specifically created after identifying, addressing and responding to the needs of every individual client.





**Slope Protection**

**WESTERN PORTAL OF  
HIRSCHHORN TUNNEL, DE**

# WESTERN PORTAL OF HIRSCHHORN TUNNEL

## Slope Protection

**Project:** Western Portal of Hirschhorn Tunnel  
**Location:** Hirschhorn (Neckar)  
**Country/Region:** Germany  
**Year of installation:** 2020  
**Customer:** Hessen Mobil, Heppenheim  
**Engineering:** Gesellschaft für Baugeologie und -meßtechnik mbH, Limburg  
**Contractor:** Fels- und Forstservice Kühr, Kirchhundem

**Initial situation:** The western portal of the Hirschhorn Tunnel on the German B37 federal road had to be protected. In 2011/2012 already sections above the tunnel portal and above the maintenance depot had been stabilized. This protection was completed in 2020.

**Description:** SPIDER® S3-130 spiral cable net plus TECCO® G65/3 mesh plus shotcrete, were used to secure the remaining section.

After a thorough excavation and clearing of loose material, micropiles were placed in a grid of 2.5x2.5 m.

ASPIDER® spiral rope netting, and in fissured areas additionally shotcrete, secure the steep areas. TECCO® mesh was installed in the flatter slope area.

**Protected object:** Road, Infrastructure

**Systems:** TECCO® G65/3, SPIDER® S3-130

**Corrosion protection:** GEOBRUGG SUPERCOATING

**Geology:** The secured rock face mainly consists of quartzite-bound sandstone from the middle Buntsandstein. Coarsely laminated clayey sandstones with a thickness of 0.1 to 2.0 m are embedded in the massive, thickly banked sandstones.

**Stabilized area:** 300 m<sup>2</sup>

**Maximum slope height:** 15 m

**Slope inclination:** 30° - 85°

**Exposition:** West



Entrance of the Hirschhorn Tunnel