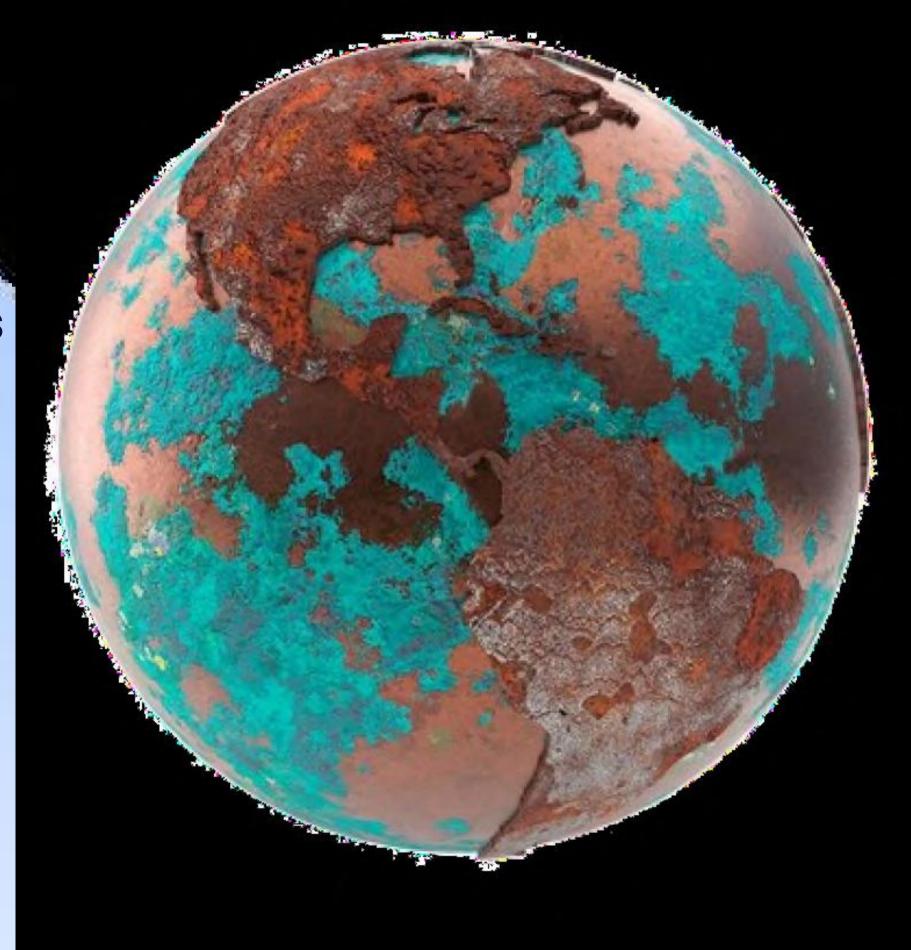
**Transformational Coatings** 

Empower

Stops Corrosion,
Saves Environment



### The Problem





#### Corrosion of Metals

All metals corrode when exposed to the environment, leading to structural failure.



#### Metal Scrappage

The corroded metals, now unfit for use, are scrapped.

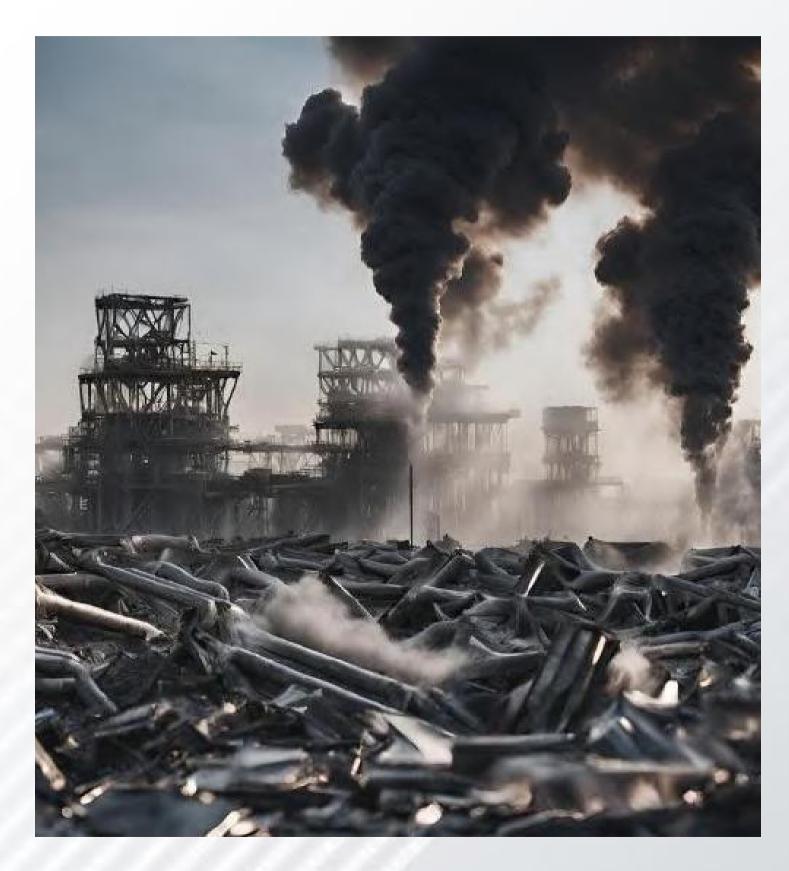


#### **Carbon Emissio**

Frequent metal replacement causes excessive carbon emissions & rapid depletion of natural resources.

#### The Time is Now!





Cost of corrosion = 6.2% of global GDP = \$ 6.26 trillion and rising

Global steel production = 1.9 billion tons p.a.

Steel scrapped due to corrosion = 490 million tons p.a.

CO2 emissions per ton of steel = 1.9 tons of CO2

CO2 emissions of steel industry = 8% to 9% of total carbon emissions

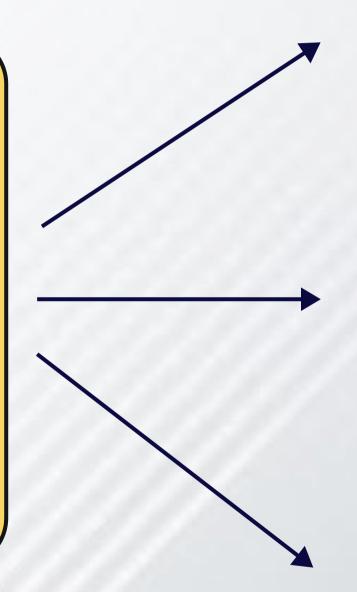


# Imagine the difference we can make if we STOP CORROSION

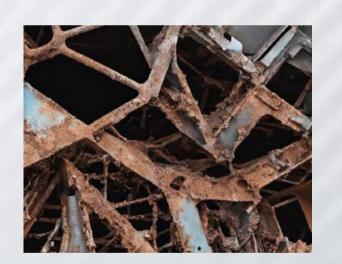
#### Limitations of existing solutions in corrosive zones

**Barrier Coatings** 

Galvanizing/
Metal lizing
steel
(sacrificial
protection)









Sand/Shot/Grit Blasting Requiredinitial & maintenance coats

Expensive, cumbersome & environmentally hazardous process.

#### **Barrier Protection**

Insufficient in preventing corrosion at coating-metal interface.

#### Rapid depletion of zinc in galvanized/metallized steel

Current duplex coating schemes are unfit for exposure to strongly acidic/alkaline environments.



The



# Solution







The



First Time in the World

Copyrighted

Patented

Metguard coating applied

Suppresses metal reactivity

VS

Metal surface passivation

Metal life extended

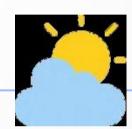
**Barrier coating applied** 

**Ongoing Corrosion** 

**Further deterioration** 

**Metal Scrappage** 

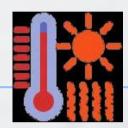
# Unmatched Performance!



Outstanding Weatherability



Acid/Alkali Resistant



Heat Resistant



Toughness and high co hesive strength



Minimum transfer loss d uring application



Long pot life for sim plified application



Scientifically proven results through Electrochemical Impedance Spectroscopy Test

Such data not available on any competitive protective coating scheme



**COMPARISON METGUARD** 

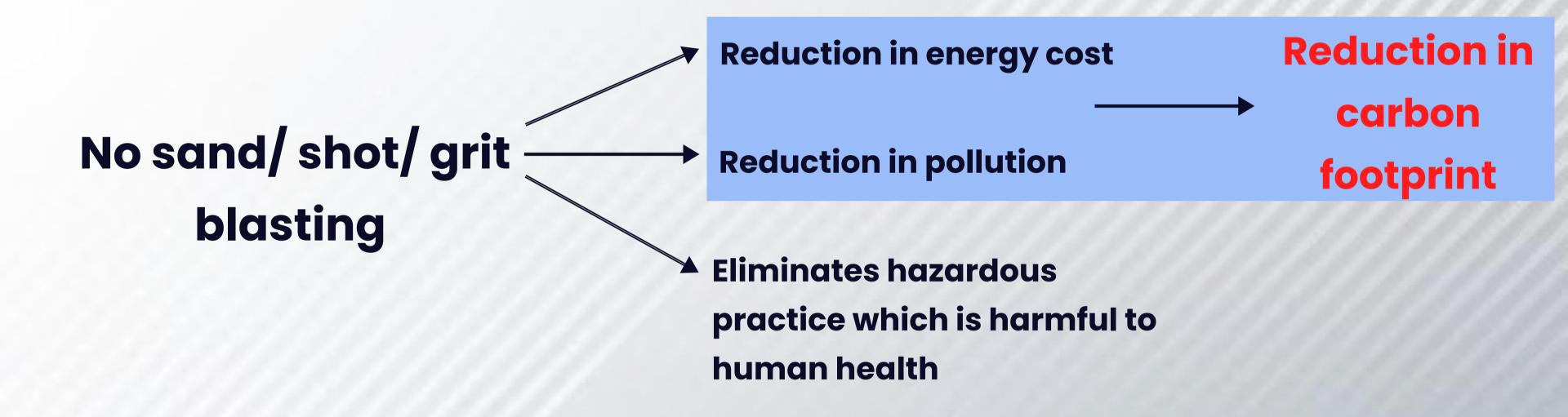
		OTHER PRODUCTS
ABRASIVE/SAND BLASTING ON NEW STEEL		
SURFACE PREPARATION COST (BLASTING)	MINIMUM	HIGH
LOSS OF METAL DURING SAND BLASTING	NOT APPLICABLE	YES
PRODUCTIVITY/ OUTPUT OF STRUCTURES	HIGH	VERY LOW
ASSET PRESERVATION		
PROBABILITY OF UNDERCUTTING	NO	YES
REDUCTION IN THICKNESS OF STRUCTURES	MINIMUM	HIGH
COST OF SCRAPPING STRUCTURAL ASSET	MINIMUM	HIGH
PERIODIC MAINTENENCE		
COST OF LABOUR	LOW	HIGH
COST OF PAINT	LOW	HIGH
SHUTDOWN TIME	SHORTER	LONGER
PAINT REQUIREMENT	MOSTLY TOPCOAT	FULL SYSTEM



THIS WILL LEAD TO A
MINIMUM COST SAVING OF
40% OVER A 10 YEAR
LIFECYCLE OF STRUCTURES,
BESIDES ENHANCING
STRUCTURAL STABILITY,
HUMAN SAFETY AND
ALMOST ELIMINATING
METAL SCRAPPAGE.



#### Environmental impact







#### Reduction in Greenhouse Gas emissions (GHG)



Approximately 25% of the world's steel annual production is used for replacement of corroded steel.

## Market Application





Structures of HRS, CRS, HDG, stainless steel and aluminium alloys, etc.



Rebars



Galvanized/
Galvalume
roofing/cladding
sheets





#### Other Application Areas

•El imination of galvanizing/aluminizing where such metallizing is essential, the metal coating deposition may be reduced



•El imination of blasting and cromatizing and its subsequent replacement by Metguard basecoat for powder coating application



