



GPIG
GREEN POLOUR INDUSTRIAL
GROUP

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CEO'S SPEECH

Reaching the status of "The Best In The Country and An Internationally Fitting Choice" in this circumstance that the country is experiencing the toughest economic downturn yet, in the shortest time possible seems out of reach. But we desire to be so and we will.

Creating value through high quality service, reaching goals within a reasonable time frame, appropriate prices and post-sale services are part of the eight pillars of Meshi division Green Polour quality strategic plan. We are aiming for customer satisfaction and hope to deliver a good experience to the customer from the very first step of choosing Green Polour to receiving the services. Our desires and goals are "fair Competition With Competitors", "A Win-Win interaction with the shareholders" and "Popularity With the Customers".

Mobility and flexibility are part of the essential traits of a swift company which stems from understanding the target market and recognizing the strength of the competitors and choosing the effective strategy. These actions are an accelerating or an inhibiting factor in the journey of the company in a competitive market. Creating variety in the products and services and entering a mindset of mass producing freighter wagons side by side with passenger and service wagons and overhauling different locomotive, cargo and passenger wagons, is one of the added values of Green Polour which in addition to gravitating different customers towards the company, it also harbors efficiently managing resources and maximizing productivity.

We **Enhance our trademark** establishing trust with the customers and we believe that high quality products and customers' unlimited support during the guarantee period, can bring us loyalty and trust. This will result in the company to be long standing in the competitive market and will increase the sales of the products as well. Even though market policies and government support is of utmost importance, a consumer's will to buy and trust the functionality of the products or added value of services has a higher value. Undoubtedly the failure of the trademark won't be solely due to the weakness of the product or its inability to sale, as it's due to multitude of reasons such as ineffective advertisement, unintuitive ideas that don't fit the market's goal, loss of concept or the design of the products and services, unsuitable pricing, incorrect estimation of market's size or faulty comprehension of parts of the market goal, which leads to the trademark's failure.

The **promise of growth to the trading partners** and establishing constructive relations and attention to the company's growth in parallel with the it's development, will guarantee the company's promise in regards to the customers. Failure in synchrony with the distributors and execution of key factors and guaranteeing distributor's resources will limit production which has caused the bankruptcy of many big franchises. The managerial team at Green Polour has a special believe in sharing the resources with trading partners and tries to make sure that the production of key benefactors is appropriate to its own production.

Technical knowledge, technological mastery and specialist human capital, are the three axes of company success and it will undoubtedly become more mobile and updated through continuous and careful planning. Putting technical strength of knowledge based companies, research centers and research consultants in good use and developing and executing company's goals, is a fitting and reasonable approach that is supplementary to its internal ability. This has always been the vision of management and shareholders of the Green Polour's industrial group in regards to this turning point.

We **consider empowering** the employees and excellence of human resources as the company's main investment and we will travers this rocky road through the support of the personals' determined, hardworking and committed spirit. Trust in design, production, quality, ingenuity and other aspects of the company are the basis of management and producers' interaction and their effectiveness as a whole, strengthens Green Polour's reach.

We hold firm the hands of the brave men in the industrial field and are proud of ourselves that side by side with the big family of Green Polour we improve production and are successful in realizing the aspirations of Islamic Republic of Iran.

Alireza Sheikh Taheri
CEO & Vice President
Winter 2021



RECORDS

Green Polour industrial group is one of the country's leading companies in the railroad transportation sector which has a resume spanning over two decades in regards to designing, producing, exporting and importing different types of vehicles and heavy and light weighted railway transporting vehicles. The resume also includes specialized repairing of the rail fleet, performing all of the monetary and economic activities related to the company and in the form of a special joint stock company at the date of 23/04/2002 in Tehran's companies registration and non-commercial institutions office with a permit registered for production of 500 transportation wagons.

After three years have passed from the registration of the Green Polour company, the wagon production factory of GPIG was built in the county of Zarand in the state of Kerman and has achieved the technology for production of prime sleep transportation wagons under the license of Astra Romania. During the acquisition of establishment license from the Kerman state's industries and mines office, the structure of the Green Polour company changed in 2006 from private equity to public equity and also the shares of the company were given to the Teacher's investment fund (TIFCO) in 2009. In 2021 with the managerial strategy change, the company was successful in changing the previous utilization license to produce 7 types of differentiated products and services including designing and producing cargo wagon, freight transportation wagons, low side flat transportation wagons, hopper wagons, body of metro wagon, reconstruction and renovation of wagons, reconstruction and renovation of locomotives and creation and assembly of necessary metal pieces. In the current state, the total capacity of yearly production is around 850 units composing different passenger and cargo wagons.

2002

Production license for **500**
Passenger wagons

2021

Production capacity of **850** wagons





GPIG FROM THE PAST TO THE PRESENT

Two decades of activity
One of the reputable companies
in the railway industry

Design and production of passenger wagon

Design and production of metro car body

Design and production of freight wagon

Design and production of hopper wagon



GPIG PRODUCTS AND SERVICES

PRODUCTS

- 1 Passenger Wagon
- 2 Metro Wagon
- 3 Freight Wagon
- 4 Hopper Wagon
- 5 Mineral Transportation Wagon

SERVICES

- 1 Technical and Engineering Services
- 2 Reconstruction, Renovation and Fixing Rail Fleet
- 3 After Sales Services



PASSENGER WAGON

Green Polour industrial group by exchanging knowledge and manufacturing technology of passenger wagons from the Astra Romania company and utilizing the strength of domestic engineers, have designed and manufactured 4 bedded passenger wagons, with steel body and in line with international standards.

Every wagon is equipped with 4 doors for entering and exiting of passengers and 2 gangway doors for connection of wagons with each other.

Green Polour industrial group as the leading company in production of passenger wagons, has succeeded in domestically designing and manufacturing of the passenger wagon's components such as exterior body, air conditioning system, electric sign, bogie and more.

Technical details

Pure mass	48/5 ton	Maximum speed	160 km/h
Maximum length	26400 mm	Type of brake system	disc
Length of the exterior body	26100 mm	Distance between the center of the bogies	19000 mm
Width of the exterior body	2825 mm	Number of compartments	10
Maximum length from rail line	4050 mm	Passenger capacity	40
Bogie	Y32		

Projects

Design and production of:

50

Sleeping wagons and delivery to **Raja Rail Transportation Company**

24

Sleeping wagons and delivery to **Rail way Transportation Company**

36

Sleeping wagons and delivery to **Bon Rail Company**

89

Sleeping wagons and delivery to **Raja Rail Transportation Company**



THE BODY OF METRO WAGONS

Simultaneously with the advancement in technology in the transportation industry and according to the needs of the country in achieving and utilizing this technology and with the goal of developing the passenger transportation industry within the city, Green Polour industrial group (GPIG) has committed to design and build the body of the metro wagons.

The body of the metro wagon is designed with the material of steel ST52.

The placement of the wagons is in 7 wagons in the order of placement of (MC-T-MA-M-MA-T-MC) with the capacity of 306 individuals.

The brakes of the train contain electric, dynamic and pneumatic functions and are equipped with a shoe brake system.

A notable point in the production of these kinds of wagons, is the successful and competent collaboration of both Green Polour and Tehran wagon manufacturing company which through this collaboration the country's ability to manufacture metro wagons domestically and the ability to develop locally has increased.

Technical details

Pure mass	37-35 ton	Width of the doors	1300 mm
Maximum speed	80 km/h	Height of the doors	1950 mm
Length of the body	19500 mm	Distance between bogie centers	10200 mm
Width of the body	2650 mm	Doors at each side of the body	4
Distance between two rails	1435 mm	Line's Voltage	750 volt DC
Wagon's height	3690 mm	The type of electrical power supply	Third rail



Projects

Design and production of:

173

173 Frame and car body of metro wagons and delivery to **Tehran Wagon Manufacturing Company**





METRO WAGONS

This company, while aiming towards the development of wagon production technology, signed a contract with the Chinese company Dalian which entails the transaction of knowledge and collaboration in the manufacturing of the body of metro wagons in Isfahan and Shiraz with the help of Green Polour industrial group.

The wagons are equipped with a travel information system, communication of the passenger with the driver and surveillance cameras. The air conditioning system is able to tune the cooling and heating inside of the wagon depending on the geographical conditions as well. The wagons' bogie is designed in a way to navigate low radius arcs, while the internal and external design of these wagons are modern and up to date. Furthermore, the propulsion system and the inverters of this wagon are up to date with European standards.

Every ROM of this train contains 5 wagons with the placement of (TC-MP-M-MP-TC) with the capacity of 198 individuals while they remain seated.

Technical details

Pure weight	37-34 ton	Width of the doors	1300 mm
Maximum speed	80 km/h	Height of the doors	1900 mm
Length of the body	19000 mm	Distance between bogie centers	12600 mm
Width of the body	2650 mm	Doors at each side of the body	4
Distance between two rails	1435 mm	Line's Voltage	1500 volt DC
Wagon's height	3690 mm	The type of electrical power supply	Pantograph

Projects

Supply project:

30

Sets of metro train and delivery to **Isfahan Metro Company**

3

Sets of metro train and delivery to **Shiraz Metro Company**





FREIGHT WAGON (MINERAL TYPE)

Green Polour industrial group, in order to reach the target of 1404 documentation vision for production of railway fleet in the country, has started the design and production of freight wagons (Mineral type).

This type of wagon makes possible the transport of minerals and similar products (Iron ore, coal,...) in the best conditions possible. This type of freight wagons, through sticking to high design and making standards, are able to easily transport 68 tons of minerals with attention given to the four axes being well-heeled.

Technical details

Pure Mass	21.5 ton	Distance between the two rails	1435 mm
Maximum Load Volume	67.8 m ³	Max speed without cargo	120 km/h
Wagon Length	14230 mm	Max speed with cargo	100 km/h
Load Length	12690 mm	Axial Cargo	22.5 ton
Wagon Width	3100 mm		
Wagon Height	3190 mm		

Projects

Design and production of:

350

Freight wagons for
Arvin Tabriz Company





HOPPER TRANSPORTATION WAGON

Green Polour company, with regards to the research and production program and taking advantage of the engineering and executive expertise in the area of hopper transportation wagons, has taken action to design and produce these types of wagons domestically.

In order to facilitate loading and unloading of hoppers, separate hatches in the floor and the sealing of the wagons is designed which solves the problem related to transportation and unloading of hoppers. The type of bogie used in these wagons is of the BOGIE Y25 lsd1 type, which due to high flexibility has minimum depreciation.

Built in essentials in the hopper transportation wagon are used for utilized production and to increase the safety of the involved individuals. These include: hopper storage containers' ladder, ladder used to access the loading hatch, entry stairs and fences used for protection and safety of individuals.

The hopper transportation wagon is able to move without any load up to the speed of 120 km/h and up to 100 km/h with load. The aspects of these wagons that need to be kept in mind is that the wagons can transport 3 different types of products by maintaining standard maintenance conditions.

Technical details

Pure empty weight	21/5 ton	Number of axes	4
Volume of load	90 m ³	Number of hopper storage hatches	3
Length of the wagon	15440 mm	Unloading hatches	6
Width of the wagon	3165 mm	Axial load	22.5 ton
Height of the wagon	4360 mm	The design of the brake system	Knorr
Distance between the center of the bogies			10400 mm

Projects

Design and production of:

250

Hopper wagons for
Parsian Rail Shargh Company



MINERAL TRANSPORTATION WAGON

Mineral transportation wagon is one of the other tools and necessities in regards to utilization and extraction of different underground and open pit mines (Manganese, coal, chrome, lead etc) and also can be used in transporting an adequate amount of dirt within the city tunnels.

Taking into consideration the special geographical conditions of Kerman and the existence of different mines in this state, Green Polour industrial group utilized their intra-organizational experience and ability and using the factory's geographical conditions and location, began the designing and manufacturing of mineral transportation trolleys.

Mineral transportation trolleys have the ability to travel on rails and are able to empty the minerals inside of it 90 degrees from both sides with minimum implied force from the worker. The body of these trolleys is made of ST52 steel and the wheels are made of anti-wear and anti-spark cast iron. The mineral transportation trolley is able to transport 1.5 ton of coal and the other beneficial aspect of these trolleys is the fast and easy installation of them on the rails.

Technical details

Pure mass	700 kg	Number of axis	2
Volume of loading	800 lit	Material of wheel	Cast iron
Length of wagon	1829 mm	Drain valve	2
Width of wagon	1006 mm	Axial load	1 ton
Height of wagon	1268 mm	Break system	Lacks breaks
Wheelbase distance	600 mm		

Projects Design and production of:

100

Mineral wagons and delivery to **Etehad Jonob Shargh Transportation Company**

20

Mineral wagons and delivery to **Saraparde Sharghi Coal Mine**

20

Mineral wagons and delivery to **Coal Industry Investment Company**

10

Mineral wagons and delivery to **Welding Steel Workshop**



TECHNICAL AND ENGINEERING SERVICES

Doing all the calculations and designing the products and related subcategories to the rail fleet is one of most important services which is being performed currently in the engineering department of Green Polour industrial group.

These services include designing all of the parts related to production of rail fleet such as production lines, necessary tools in production lines and final products such as passenger and freight wagons. Examples of important projects being executed in this area, designing production lines for mineral transportation freight wagons and hopper wagons.

Product optimization, reducing costs, increasing production efficiency, domestically producing the parts and the main compartments, supporting production lines, editing the quality control criteria, collaboration in preparing a quality assurance program, welding engineering from design to training and monitoring and offering technical services to the quality control team from entering the factory to the end of the production line, all are the most important tasks of this department. Reverse engineering and creating maps and editing processes in producing different types of bodies for railway vehicles side by side with setting up testing abilities, are part of the other activities of the engineering division in the company.

RECONSTRUCTION, RENOVATION AND FIXING RAIL FLEET

The existence of knowledge and production skills side by side with production equipment has given the opportunity to Green Polour industrial group to in addition to producing railway products, is able to easily and to a moderate quality perform overhauls and reconstruction of different rail fleets available in the country. Examples for the projects related to these services can be reconstruction of passenger wagons for the companies Raja and Joupar and reconstruction of different freight wagons and locomotive units.

This company reconstructs passenger wagons according to the description of the services desired by the client, including the conversion of seated wagons to compartment passenger wagons, reconstruction and changing the usage of passenger wagons in its portfolio.

Projects

84

Design and reconstruction of 84 units of sleeping passenger wagons for Joupar Rail Transportation Company



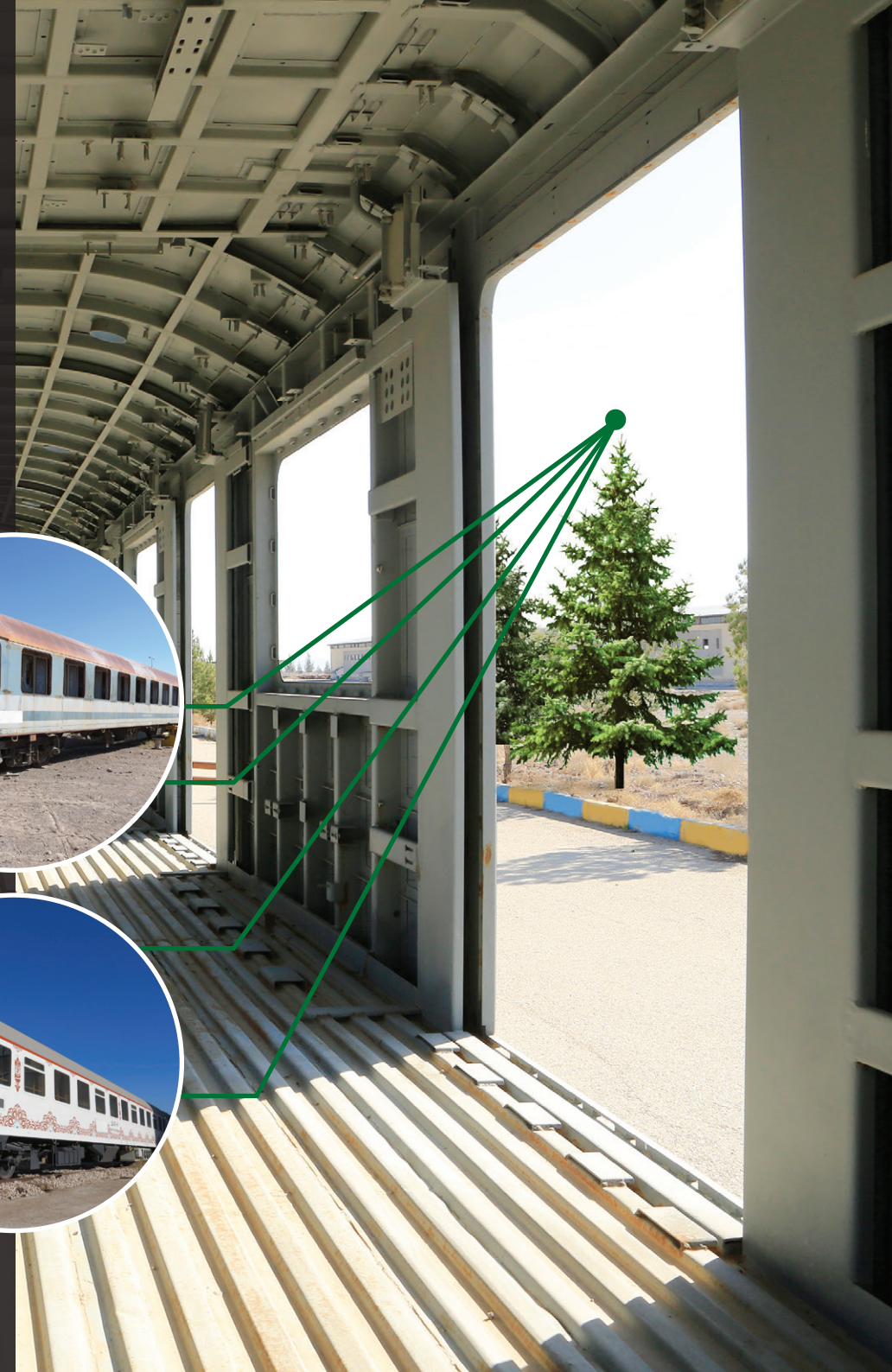
10

Design and reconstruction of 10 units of sleeping Passenger wagons for Raja Rail Transportation Company



3

Design and reconstruction of 3 units of sleeping passenger wagons for Rail Tarabar Saba Company



AFTER SALES SERVICES

In today's business, focus on high quality is one of the most important responsibilities of manufacturing companies and after sales service is the guarantor of preservation for this quality. Due to this, Green Polour industrial group, doesn't believe that a sale means the end of communication with their customer and has established the after-sales service unit with the aim of protecting customer rights which is high on its agenda.

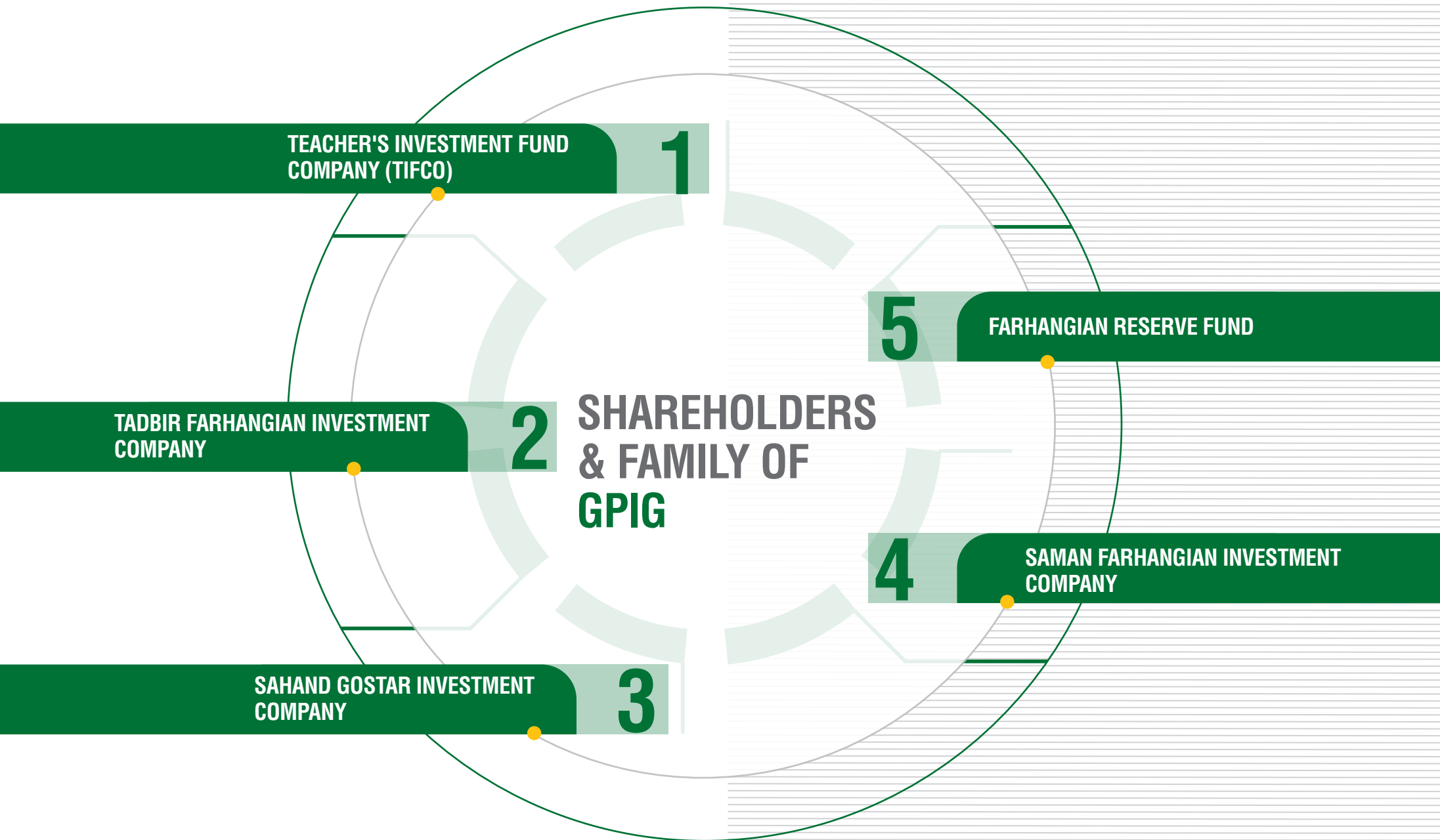
THE ABILITIES OF AFTER-SALES SERVICE UNIT

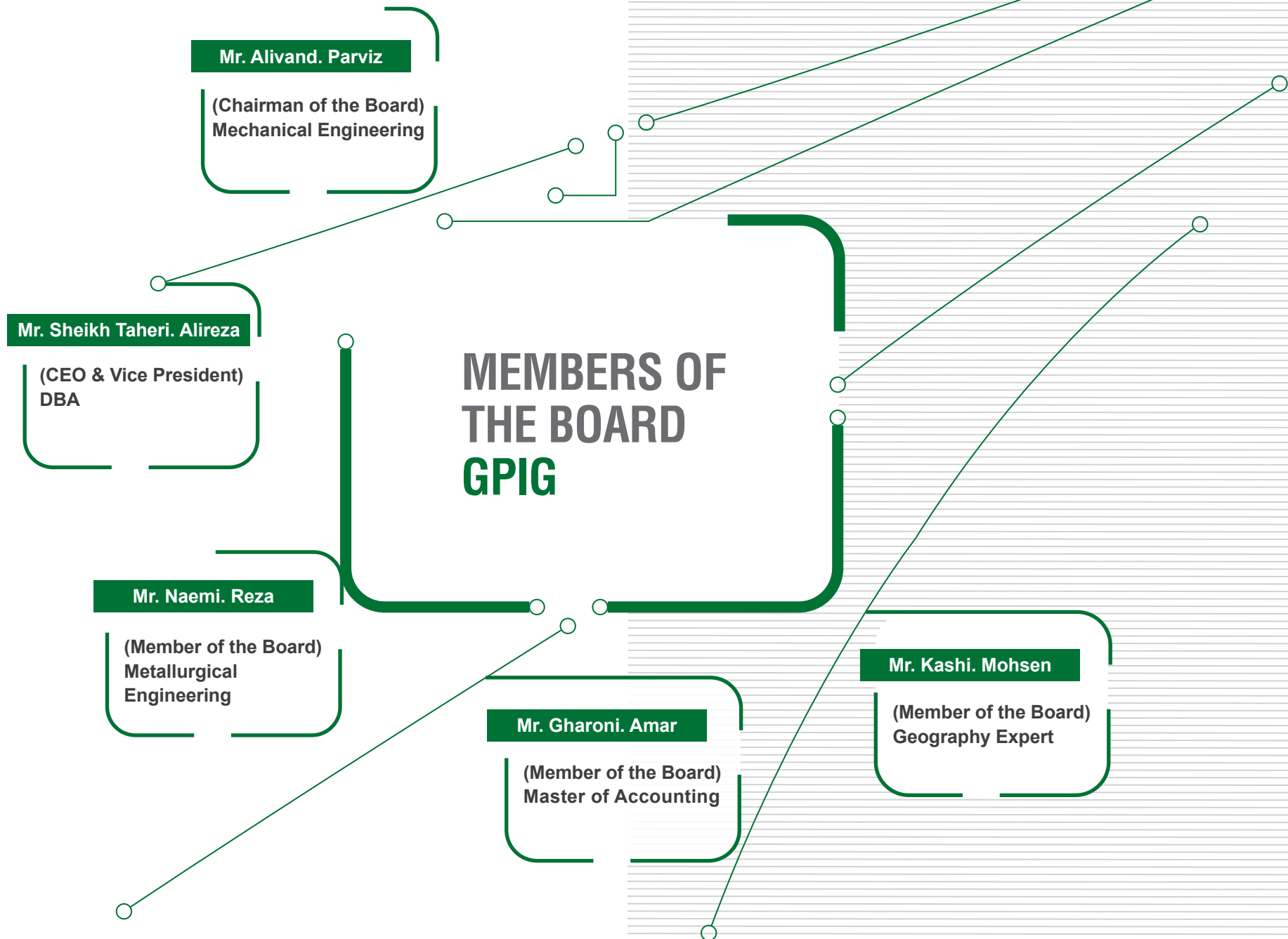


- Handling received reports from operating companies in regards to detecting the guarantee criteria and presenting analytical report about the damages to the customer.
- Full coverage of guarantee services and outside of the guarantee criteria using specialist personal of after-sale service unit and production support .
- Supporting and updating specialist softwares that are used for manufacturing products.
- Performing periodic visits and performing corrections and making defective parts available.



- Offering free service and periodic repairs under the guarantee period of the products
- Able to offer spare parts if needed by the customer
- Conduct surveys in order to improve the process of offering after-sale service
- Hold courses teaching to repair and maintain products for the customers







GPIG CUSTOMERS

Passenger Family:

Raja Rail Transportation Co. ● Rail Transportation Co. ● Bon Rail Co.

Metro Family:

Tehran Wagon Manufacturing Co. ● Shiraz Metro Co. ● Isfahan Metro Co.

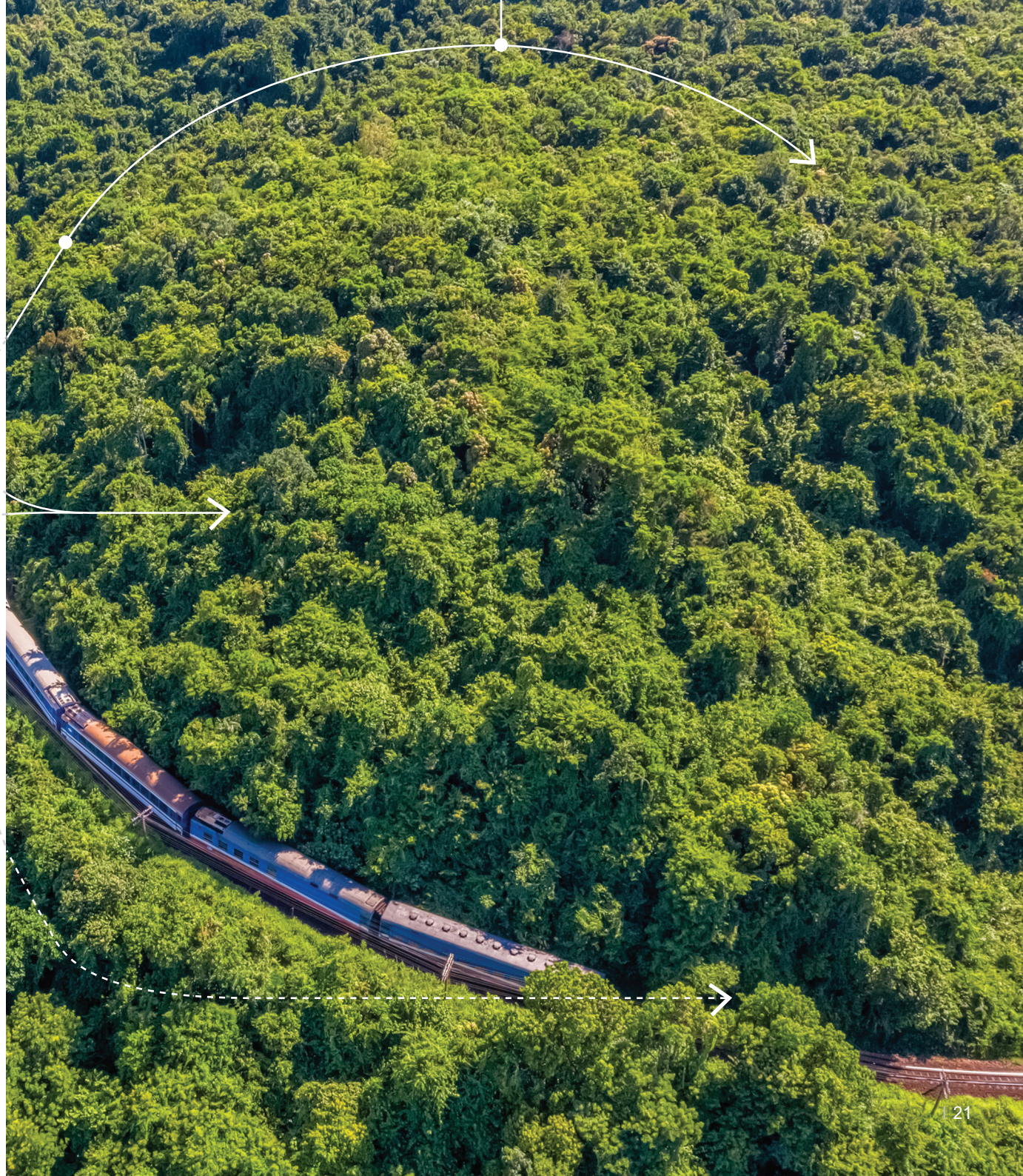
Freight Family:

Parsian Rail Shargh Co. ● Arvin Tabriz Co.

GPIG ON THE WAY OF DEVELOPMENT

Even though all the services offered by the Green Polour industrial group, from the very beginning to today, has brought a stunning resume, the company hasn't neglected to take a step forward towards development. What has been presently at the top priority of the company's executive plans, is the attention to design and making sure the development projects come to fruition which has an important role in building a bright future for the franchise as a whole.

The main development plans for Green Polour industrial group are to finish the first phase of the factory after many plannings and years in order to perform the next phases and also creating new production halls. A matter which is very important is using up to date technology on the way to development.





GPIG **IN THE FUTURE** **HORIZON**

The family of Green Polour industrial group has envisioned a bright future ahead of itself and in this imagined future has seen itself as very influential and active. The working future of the company where its share in the railway transportation has increased and Green Polour industrial group by achieving the title of the first knowledge based company in railway industry will be able to, through production of products and offering services on the basis of modern technology, be responsible for being a major contributor to improving the quality of the products and services. In the portfolio of future products of Green Polour industrial group, a diverse collection of industrial transportation products and services will be offered.

GPIG in the future of our dear country, known as the first knowledge based company, will be a production and services hub and in this journey will give its shares in the productions and improve knowledge and quality of the life of Iranians.



GPIG AND THE ENVIRONMENT



One of the main strategies that is considered by the Green Polour industrial group, is the supporting and accompaniment of the environment. This strategy today has become a belief in the Green Polour in a way that not only the company's products are environmentally friendly but is designed to be compatible with it and special attention is given to the environment throughout the process of production. The subject which has utmost important to the Green Polour family is to produce a green product through a green and environmentally friendly production process.



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