

Research & development



Our long-term competitiveness depends on our ongoing ability to develop products and technologies that create sustainable value for industry and society. The OCI R&D Center pursues advanced projects spanning the full spectrum of OCI businesses with the goal of maximizing long-term value and delivering superior products.



OCI R&D Center, Seongnam, Korea

Strategy

Our R&D strategy and corporate values of Change, Challenge, and Chance are fundamentally interlinked.

Change defines our short-term strategy. Here we focus on recruiting and training specialists with exceptional experience and expertise in our core technical disciplines. We also focus on optimizing process development to ensure the stability of recently developed products during the ramp-up to mass production.

Challenge embodies our mid-term strategy. Our top priority here is to identify and launch innovative projects that will help us overcome technical barriers to progress in our current businesses and pave the way for future growth.

Chance empowers our long-term strategy. Here we focus on looking over the horizon as we identify and explore the new business areas and opportunities that will keep us growing sustainably into the future.

2018 overview

In the basic chemicals field, we continued to adopt new technologies and develop equipment aimed at delivering cost reductions in all major product categories. We also developed a wide range of recycling technologies designed to cut costs as well as waste.

In the petrochemicals and carbon chemicals fields, we collaborated closely with major tire makers in the development of eco-friendly products as well as providing technical assistance. We focused on developing new carbon black grades to bolster sales as we expanded our product evaluation techniques and compounding know-how to further boost competitiveness.

In the energy solutions field, we developed analytical tools to determine the feasibility and optimal sizing of energy storage systems for solar PV projects. This data-driven approach further enhances the competitiveness and profitability of our project proposals.

2019 direction

We continue to foster a learning organization that is strategic and focused on the future. Building on the momentum of our short- and mid-term focused strategy, we are expanding our collaborative framework with our businesses to steadily reduce manufacturing costs for existing products as we also pursue R&D on new products that have a high probability of generating revenue in the mid-term. We will also be taking a multi-disciplinary approach to tackling the fundamental challenge presented by continued low oil prices to ensure our businesses remain competitive.



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Intellectual property

In 2018, we applied for 188 patents and registered 44 business secrets. Our ongoing focus on systematically managing our growing IP portfolio continues to strengthen the competitiveness of OCI products and contribute to the bottom line.

Patents granted	
Korea	178
Rest of world	97
Total	275

2018 patent applications

Korea	117
Rest of world	71
Total	188

Global R&D network

Over the years, we have forged collaborative R&D ties with major universities and research organizations in the United States, Korea, China, Japan, Malaysia, and other key markets where we have a business presence. Expanding the scope of these win-win collaborations is a key part of our efforts to gain insights on new trends and technology and secure a core competitive edge in key emerging technologies and fields that will define the future of the chemical and materials industries.