

Vision

- Through research and development of new technologies that will become Niterra's new core competencies, we will ultimately contribute to the creation of new businesses
- Establishing a competitive advantage in technology through intellectual property rights and contributing to the enhancement of corporate value

Key Features

- Accelerating technological innovations by fostering a flexible and open research framework that integrates internal and external expertise
- Securing a competitive advantage through intellectual property mix activities cultivated over many years in the automotive components business

Challenges

- Identifying businesses with the potential to grow into major ventures replacing spark plugs and sensors, and conducting R&D on new technologies
- Global strategic applications and obtaining rights for supporting the competitive advantage of new business pillars

Corporate Officer's Message



Creating "the correct answer" in an uncertain era
R&D that responds to customer needs and proactive intellectual property strategies

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General Manager Business Implementation Div.

Organizational restructuring to respond quickly to customer needs and cultivate mid-to-long-term technology seeds

Generally, research and development faces barriers known as the Devil's River*1 and the Valley of Death*2. In the past, our company also faced a challenge where research departments focused too heavily on research itself and failed to fully capture real market pain points, resulting in the diligent creation of things that were not needed in the first place. Furthermore, in recent years, changes have been so drastic that it is not uncommon for customer challenges themselves to change during the development process. We reorganized our organization in April 2025 to break through this situation and work closely with our customers to address their challenges at all times. We have established a two-pronged system consisting of the Business Implementation Division, which captures market voices and handles speedy social implementation through an integrated system including production and quality assurance, and the Management of Technology Division, which conducts thorough basic research with a view toward 10 to 15 years in the future. This has created a mechanism that allows us to respond quickly to immediate needs while nurturing mid-to-long-term technology seeds.

Accelerating development in three focus areas centered on unique ceramic technology

To compete against increasingly complex social challenges, it is essential to clarify our core competencies and concentrate resources in areas where our strengths can be leveraged. We do not pursue things that other companies can do faster or cheaper; instead, we focus on areas where we can create added value by leveraging ceramic technology capable of delivering performance in harsh environments and precise gas sensing technology. For example, a strength of ours is the technology to precisely control the boundaries between ceramic grains (grain boundaries) at the atomic and nano levels. By combining this with analysis, evaluation, and simulations using computational science, we create a competitive advantage that other companies cannot easily follow. Leveraging our strengths in ceramic technology cultivated in the automotive components business, we are currently promoting development in three focus areas (mobility, semiconductors, and environment & energy) by targeting areas where our seeds match customer needs while also incorporating external expertise.

AI utilization of proprietary data and proactive intellectual property to build strong entry barriers

To accelerate development speed, we are also advancing the utilization of AI. The source of competitiveness here is the proprietary data fed into AI. We are accumulating this in a closed environment, including failure data that was previously discarded, to prepare it as a weapon for differentiation from other companies. Furthermore, an intellectual property strategy is vital to ensure that created technologies are converted into reliable business value. We utilize IP landscape to identify customer challenges and construct patent networks based on higher-level concepts backcasted from those challenges. By predicting competitors' moves and securing key technical points, we build strong entry barriers. While walking alongside our customers to provide value quickly, we place importance on a strategy that builds firm entry barriers in terms of intellectual property to link these efforts to revenue.

Talent who do not stop to search for the optimal solution but turn the chosen path into the "correct answer"

While we embrace evolving AI, we believe at this point human "translation" is essential to determine which technology should be used and how to solve the complex challenges customers face. In this day and age, it is difficult to make a perfect prediction in advance and find a perfect answer. However, even if the chosen path falls short of perfection, launching it into the world quickly could allow it to become the new standard. Alternatively, by following up with subsequent initiatives or expanding into other countries, it might ultimately achieve a value that represents the ideal. We need talent who do not stop to search for optimal solutions but instead persistently carry out their chosen answer and transform it into the correct one. By combining the power of people possessing such enthusiasm and execution capability with our long-cultivated technological strength, we will continue to bring positive transformation to society and within the company toward realizing our vision as a "company that brightens the Earth."

*1. The barrier between basic research/technological development and product development/commercialization.
*2. The barrier between product development and business implementation/mass production.

PROLOGUE
01 Value Creation Story
02 Growth Strategy
03 Capital for Improving Corporate Value
Financial Capital
Human Capital
Respect for Human Rights
Occupational Health and Safety
Intellectual Capital
DX Strategy
Manufactured Capital
Natural Capital
Social and Relationship Capital
Sustainable Procurement
04 Corporate Governance
05 Data