Developing Software Engineers for Vehicle Electrification

Electric System Development Department

Reskill Internal Talent to Drive the Future of the Automotive Industry!

Software engineers are essential for developing electric systems, the key to achieving carbon neutrality. However, Aisan has an extreme shortage of software engineers. We have primarily manufactured mechanical parts for engines, so we are not well-positioned to fill this need. There is also a shortage of talent in the industry as a whole, which has made it difficult to secure talent.

Therefore, in FY2022, we launched the “Software First 100 Project”(SWF100) with the goal of developing 100 software engineers over three years. We reskilled young and mid-career employees seeking to transition into software engineering, and provided training for new hires entering software development roles.

First, we formed a special task team for implementing development curriculums. We started by defining the type of talent Aisan sought. Then, we define the ideal goal for engineers, Talent Development Policy, goals, and methods. As we implemented the Talent Development curriculums, curriculums, we continuously refined our methods to enhance their effectiveness.

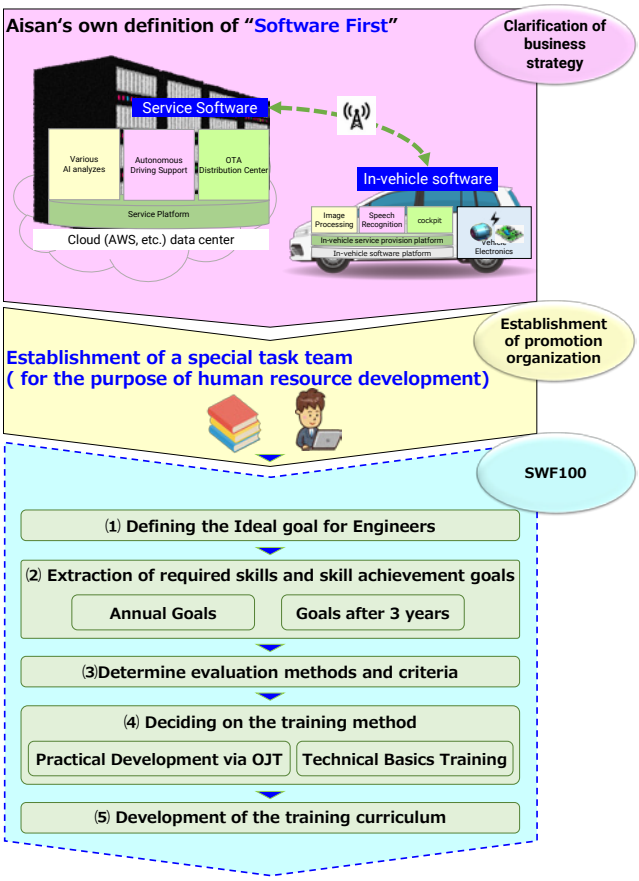
The development policy, outlined in section 01, involved making the skill acquisition status visible, selecting relevant topics, and providing guidance that considered the skill areas needing improvement and each individual’s aptitude. By the final year of the program, the participants had grown to the point where they could contribute to the development of actual products under a leader’s guidance. The three-year program ended in FY2024. We achieved nearly all of our goals in terms of participant numbers and skill levels. Going forward, we plan to focus on strengthening our organizational capabilities and cultivating leaders.

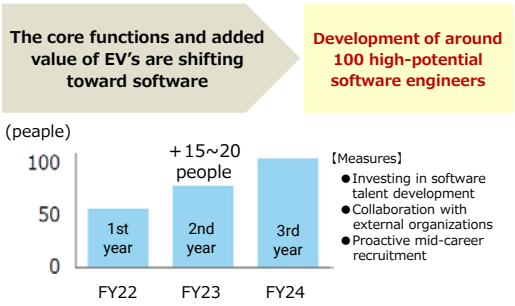
Highlights of Achievements

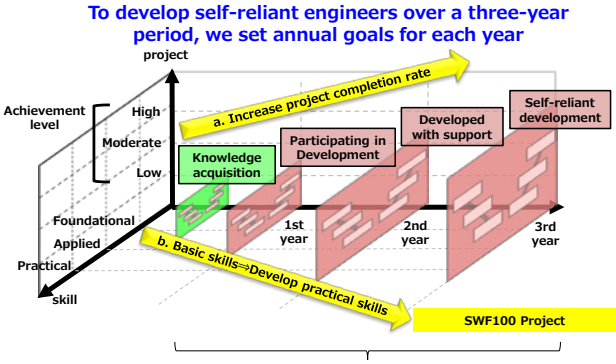
01

Established Skill Development Goals and Methods Aligned with the Ideal Engineer Profile

In the planning phase, we first defined the ideal goal for engineers, the skill achievement goals for the next three years, the evaluation methods, and the development of the training curriculum. We defined the talent profile as “talent with the skills to independently develop in-vehicle systems,” based on the technologies in which Aisan Industry has traditionally excelled, plus software skills.



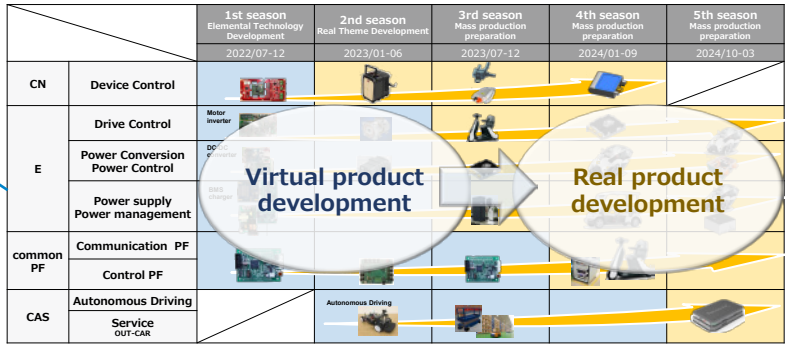


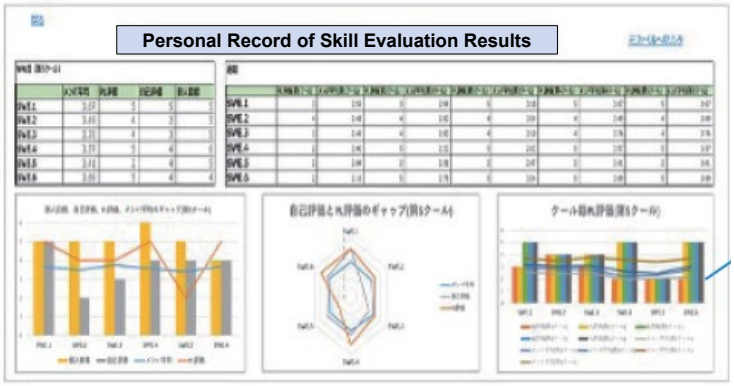


02

Driving Practical Skill Development Through a Hands-On, OJT-Focused Curriculum

The development curriculum focused on on-the-job training (OJT) to quickly develop practical skills. Basic skills required for OJT are acquired through a three-month basic development of the training curriculum conducted prior to OJT. Development themes are set based on the business strategy roadmap. Each team advances development under the guidance of a project leader in accordance with the Aisan development process. Participants aim to enhance their skills by repeatedly experiencing development cycles called "season" every six to nine months.





03

Development Status Monitoring and Timely Follow-Up

Member evaluations are visualized based on predefined criteria, and follow-ups are conducted according to individual aptitude.
The criteria are applied by expanding the industry standard ETSS (Embedded Technology Skill Standards).

Results

- In three years, nearly all of the reskilled members advanced to the intermediate level they were aiming for.
- From the second half of FY2022 onward, they participated in multiple actual product development themes.
- Completed construction of a basics training and OJT curriculum system.

Future Measures

- We will improve our capabilities to respond to new demands, such as increased development of mass production and in-vehicle security, as well as environmental changes, such as SDV and generative AI.
- Our key activities will focus on strengthening our talent (Development of Project Managers and Technical Experts, etc.) and our organization (High-quality development processes, management system utilization, etc.). Additionally, we will also accelerate the development of electrified products as a new project.