

# Strengthening responsiveness to increasing software development: Support for Procurement of Software Development Resources

We provide support for the effective procurement of resources for planning and creation of an appropriate software development system

- With the advancement of CASE, there has been a dramatic increase in IT software use in vehicles and servers

The advancement of CASE in the automotive industry has dramatically increased our reliance on software.

In order to control automobiles and provide various services, not only does software need to be increased, but its quality also needs to be improved.

To realize CASE, AI (Artificial Intelligence), big data analysis, high-definition maps, precise feedback control, and an easy-to-use user interface are indispensable. Therefore, high-speed processors, special sensor information, and highly technical software that make full use of advanced mathematical models must be developed in a short period of time.

- Need to use various approaches to procure resources

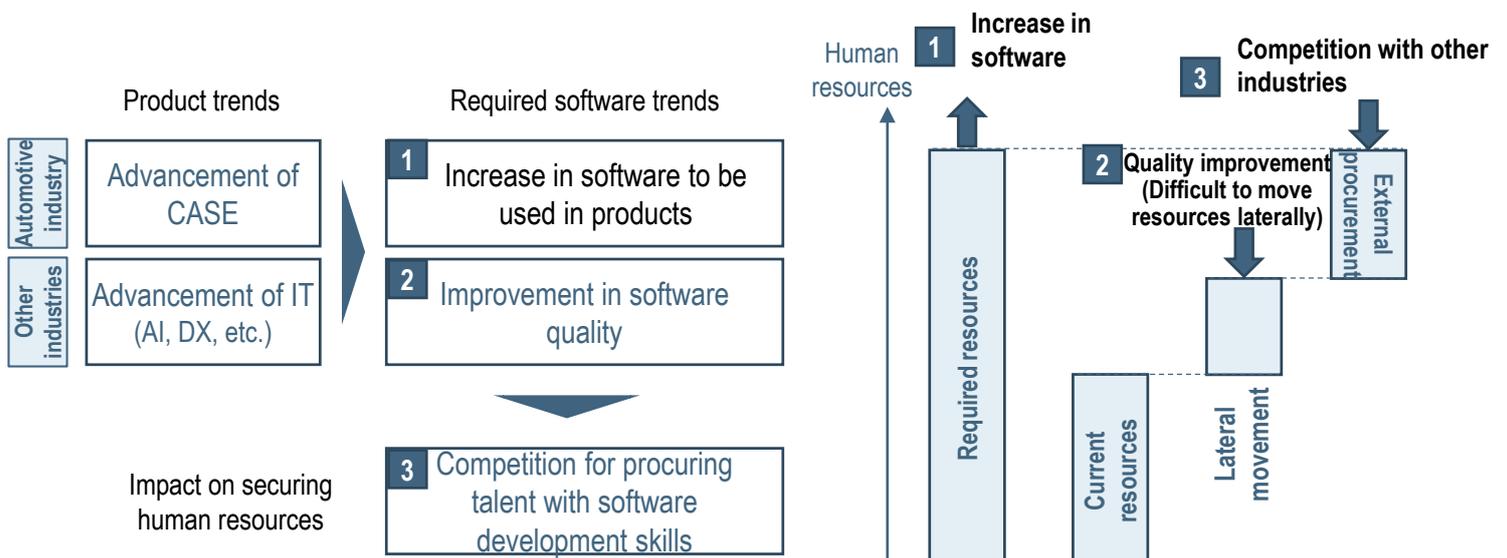
Software is becoming advanced not only in the field of automobiles, but in all the areas of society, for example, IT equipment is becoming more advanced and widespread, and home appliances, more intelligent.

As a result, there is a shortage of engineers capable of developing advanced software, which is causing a scramble across industries.

Until now, engineers have been trained internally, but in the field of software, where technological innovation is rapid, there are not many advanced resources to begin with. Moreover, not only do they lack time for training, but there are no leaders to train them.

As a result, domestic procurement (within Japan) has reached its limits, and it is necessary to optimize and establish procurement schemes covering overseas.

## ■ Software talent shortage caused by product trends



Need to secure human resources under intense competition with other industries

# We not only aim to secure human resources in line with the business strategy, but also focus on overall performance by building a system where employees feel comfortable

## Securing human resources based on trends in the automotive and software industries

It is relatively easy to determine the required resources for a company from the gap between its current state and future image drawn up in its business strategy. However, in order to secure the necessary resources in the software industry as a whole, where it is becoming more and more difficult to do so, it is important for management to have good judgement skills and to build an environment where people want to stay.

In other words, it is necessary to have a perspective on the kind of companies and human resources that are to be secured and the methods to retain them, including non-monetary aspects as well.

NRI is one of the largest system integrators in Japan, and has accumulated knowledge over many years on the evaluation of software development companies and their personnel and future trends.

We use this knowledge and combine them with multifaceted measures to secure and maintain human resources.

Case study: Maintaining an appropriate distance depending on the situation and deepening relationships while reconciling differences

NRI helped a software developer secure development resources for automobiles.

We analyzed the existing portfolios and future trends to identify human resources that can be internally adjusted, and estimated the number of resources by capacity to be procured externally.

Generally, we follow this approach to identify promising companies and start approaching them individually. However, in order not to end up with mere numbers, we take into consideration their corporate philosophy and culture and thereby create a suitable form of collaboration.

For this project, we not only delineated the current form of collaboration, but also presented the stages from trial ordering to dispatch on site, business tie-ups, and capital tie-ups, making it a pilot project, and established a scheme that allows us to gradually deepen our relationships while also maintaining an appropriate distance from each company.

## ■ Flow of selection of promising companies and partnership negotiations

