

# リーディング大学院における横断型人材育成

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## Transdisciplinary Human-Resource Development in Leading Graduate School Program

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**Abstract**— Leading graduate school program run in Keio University is introduced. The main stream of the society is changing and a paradigm shift forces us to leave from exiting leader reference. We are trying to establish how new leaders for the super mature society are developed in PLGS. Double degree system called M/M/D system together with various occasion to see the issues in the real world is a very promising way reach the final goal. The students are expected to have integrated ability with bird eye in this program.

**Keywords**— graduate school program, super mature society, double degree

### 1. Introduction ~What Kind of Students are Taking Part in This Program?~

As the trend toward a knowledge-based society continues, the creation and application of knowledge, information, and technology have become the driving forces behind all forms of social progress. We are experiencing an era in which successful competition depends on superior knowledge and wisdom.

In worlds of global research and business, a doctoral degree is becoming an indispensable asset indicating that the holder possesses the required qualities and competence to succeed, backed by a high degree of specialized knowledge.

There is a need for gifted human resources capable of exercising leadership on a global scale to generate new value for society through innovation, and point the way toward solutions to the urgent issues facing humanity, while maintaining a comprehensive view of the entirety of humankind's divided and subdivided realm of knowledge. Countries throughout the world are bolstering efforts to boost the number of doctorate holders, and competition

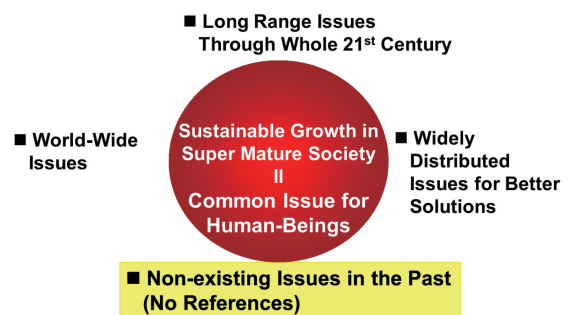


Fig. 1: Problems in 21<sup>st</sup> century

for outstanding human resources across national borders is growing fiercer. As Japan leads the developed world in the trend toward a lower birth rate, aging society and dwindling population, in order for the country to remain a vital player on the world stage in the years to come, it is necessary also to display leadership on resolution of unprecedented challenges facing humanity. Fig. 1 shows challenging problems in coming era. To do so requires cultivation of highly competent human resources that can produce results on a global scale, and this means that dramatic improvement of doctoral programs is an urgent task.

As a general trend, enhanced course work and other developments are contributing to steady improvements in the effectiveness of graduate school education. At the same time, there remain challenges in entrenching educational practices that fit the tenor of graduate school education and doctoral course-based framework, as shown in Fig. 2.

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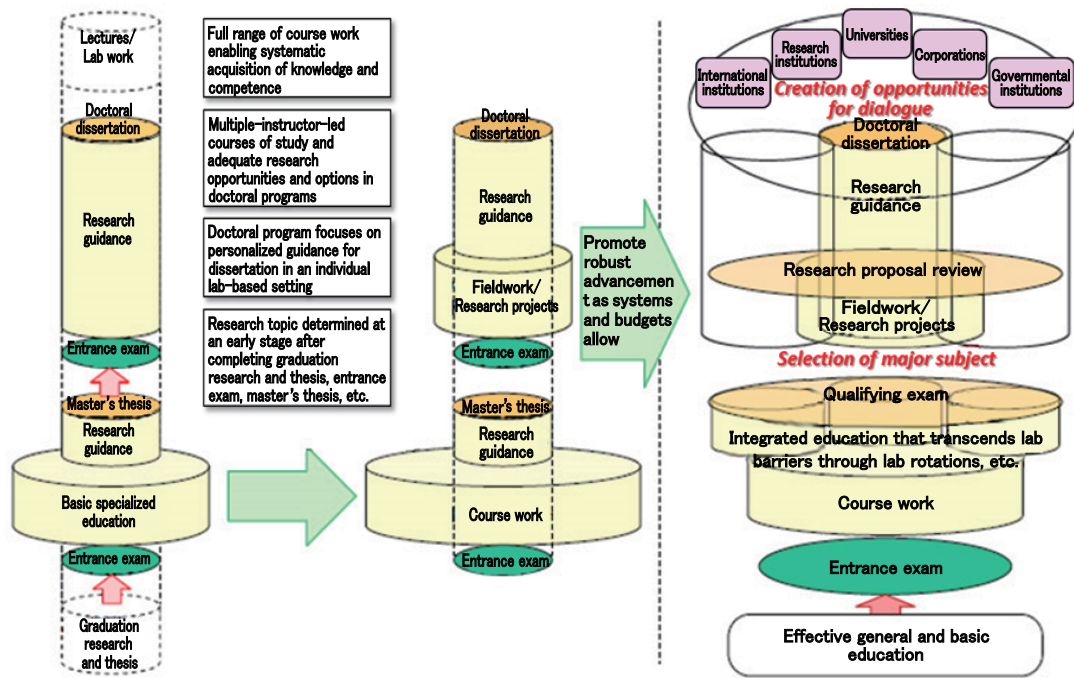


Fig. 2: Existing system vs leading program for postgraduate school

To ensure that doctoral degree holders can thrive on the world stage as core human resources in industry, academia and government, universities that strongly emphasize graduate school education and doctoral programs in particular must strive for consistency and connectivity throughout all graduate school courses and ensure the quality of doctoral degree programs.

The followings are key concept in the program.

1. Creation of opportunities for dialogue between industry and academia on graduate school education and establishment of career paths
2. Multidisciplinary research guidance framework that facilitates creative, original research
3. Wide-ranging coursework and integrated study, rigorous screening to ensure basic competence
4. Promotion of Doctor Course (DC) and Research Assistant (RA) programs, expanded scholarships for outstanding academic performers
5. Organized promotion of Teaching Assistant (TA), an effective means of improving knowledge retention
6. Entrance exams that avoid excessive focus on specialized fields and measure basic competence. Development of flexible systems allows changing of majors, etc.
7. Proactive disclosure of information on degree acquisition process, financial aid and future career paths

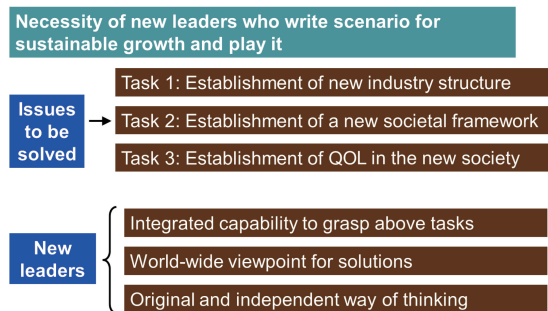


Fig. 3: Interdisciplinary discipline for program for leading graduate school

## 2. Program of PLGS (Program for Leading Graduate School)

20th century was a period of growing industry. The standardization is a philosophy, because the quantity is most important. However 21<sup>st</sup> century is different. People are more and more interested in QOL (Quality of Life). Quality is more important than quantity. The background of this change of the trend comes from the super mature society. According to the statistics, more than 26% of population in the developed countries is more than 65. It is almost three times of 100 years before (1950). The problems arise in the super mature society are complicated and widely spread. If such problems are not cleared, the society itself will be spirally decreased. A scenario for sustainable growth should be immediately shown. The problems we are facing will be

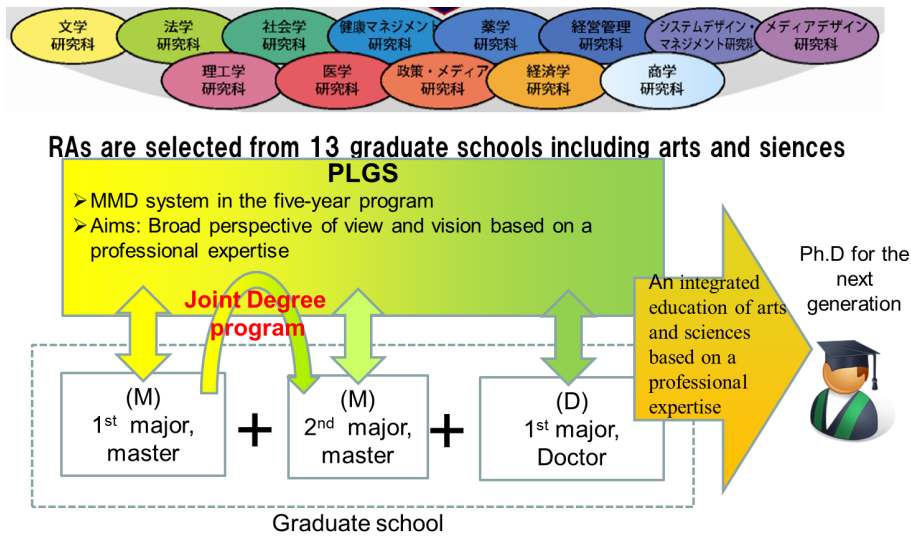


Fig. 4: 5 years schedule in PLGS

### All-Round Program for Leading Graduate School (PLGS)

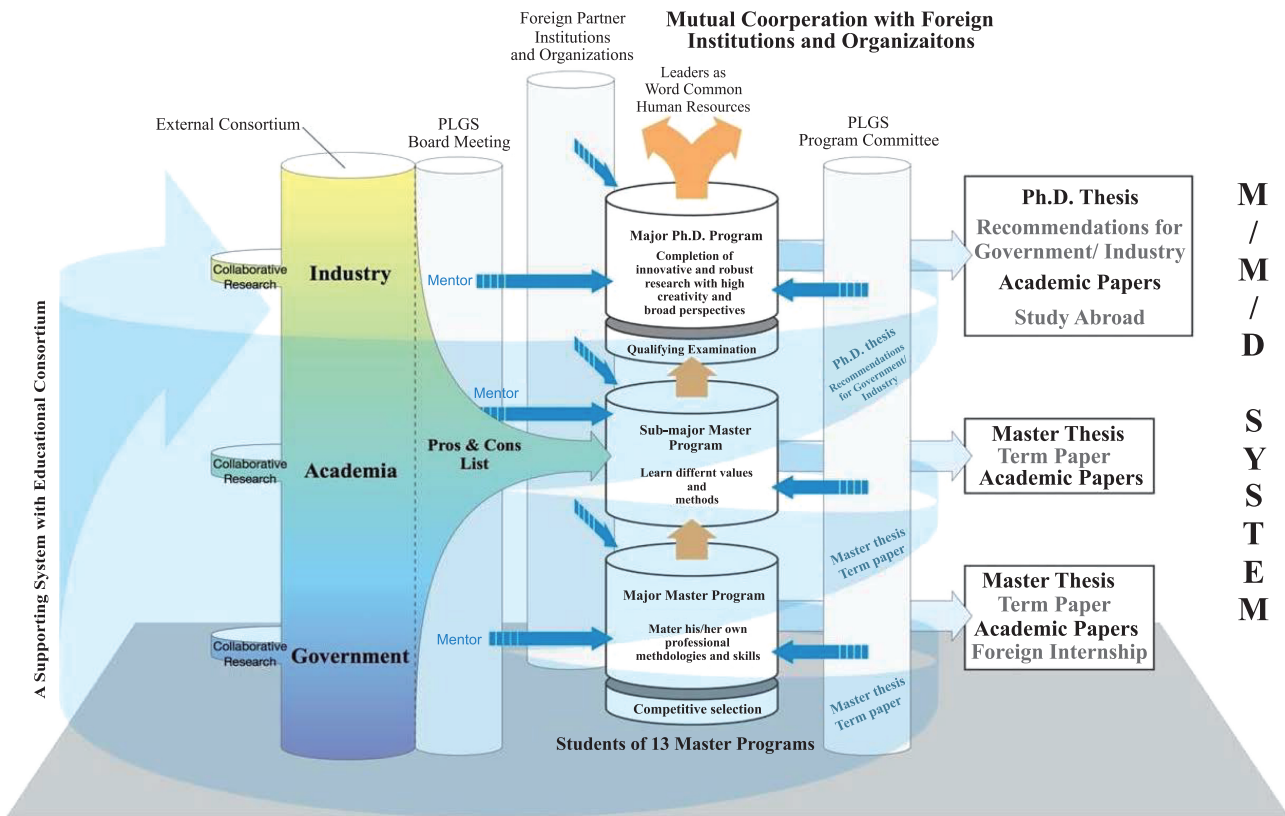


Fig. 5: Program for leading graduate school running (all-round type) at Keio University

summarized in Fig. 3. The most difficult issue is that no one experienced this situation and we do not have good references. Japan is fastest country for aging, thus we should show how this problem is solved.

We picked up this issue and itemized in three tasks as

follows. For completing these tasks, new leaders are necessary. The program at Keio shown in Figs. 4 and 5 aims to develop such leaders in PLGS. Students who are permitted to join this program are required to receive two master degrees and PhD degree.

**M/M/D System in Program for Leading Graduate School**

– A Time Chart from An Acceptance for the Program through A Completion of Ph.D. –

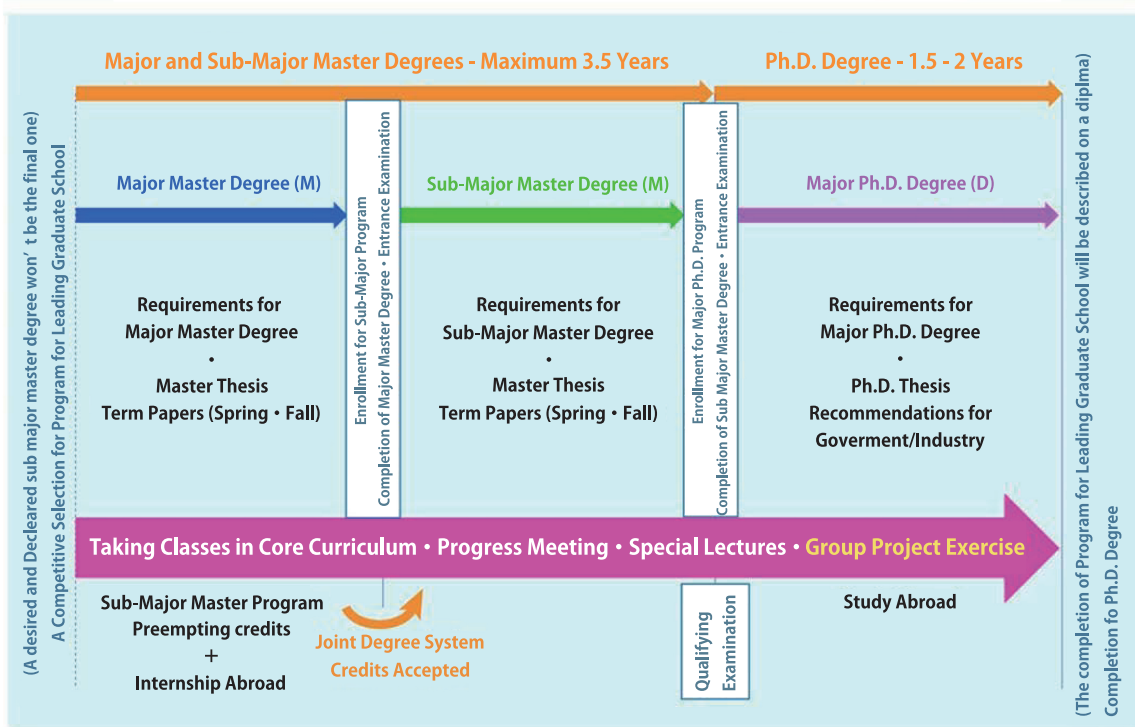


Fig. 6: Master-Master-Doctor (M/M/D) system

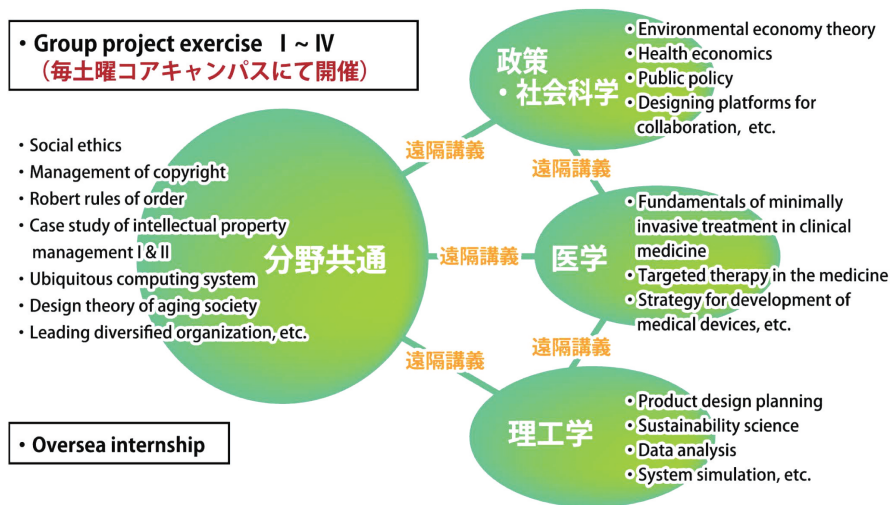


Fig. 7: Curriculum for PLGS

Fig. 6 figure shows the process for 5 years program for one postgraduate school student. Double degree for masters assures the unified of social and political science, and natural science and technology. The following figure shows how they grow up in these 5 years. The program started in 2012. The progress looks fine by the huge effort by RAs. The future of the program highly depends on their effort.

### 3. Curriculum

The structure of the curriculum is shown in Fig. 7. The integration of various subjects will give the wide view to the students. There are many exercises are included in this program, that will give practical art to the students. The system is flexible and any constructive opinions on this pro-



gram are highly welcome. This is a very first program and we would like to open our results anytime. Your kind cooperation would be most appreciated.

#### 4. Concluded Remarks

The novel postgraduate school system (PLGS) was introduced. The program is well transdisciplinary and will be one of the future education models.

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