- Finding the right balance -
PhD production numbers and their impact on society

PhD human resource for industry and society

Internationalization

Vice-President
The University of Tokyo

Takehiko Kitamori

General Information of UT and GS. Engineering

UT Foundation : 1877

UT Organization :

9 Faculties, **15** Graduate Schools, **29** Research institutes

29,000 Students (**12,000** UG, **3,000** int.)

4,000 Professors, **3,700** Staffs

GS.E Organization :

18 Departments, **6** Research centers

5,800 Students (**2,000** UG 3,4-grades, **1.200** int.)

700 Professors, **200** Staffs

World rank. Eng **6** (QS), Phys **3** (TR), Chem **5** (TR), Civil **2** (QS), Mech **8** (QS)
EE **10** (QS), Chem Eng **10** (QS), Comp Sci **11** (QS)

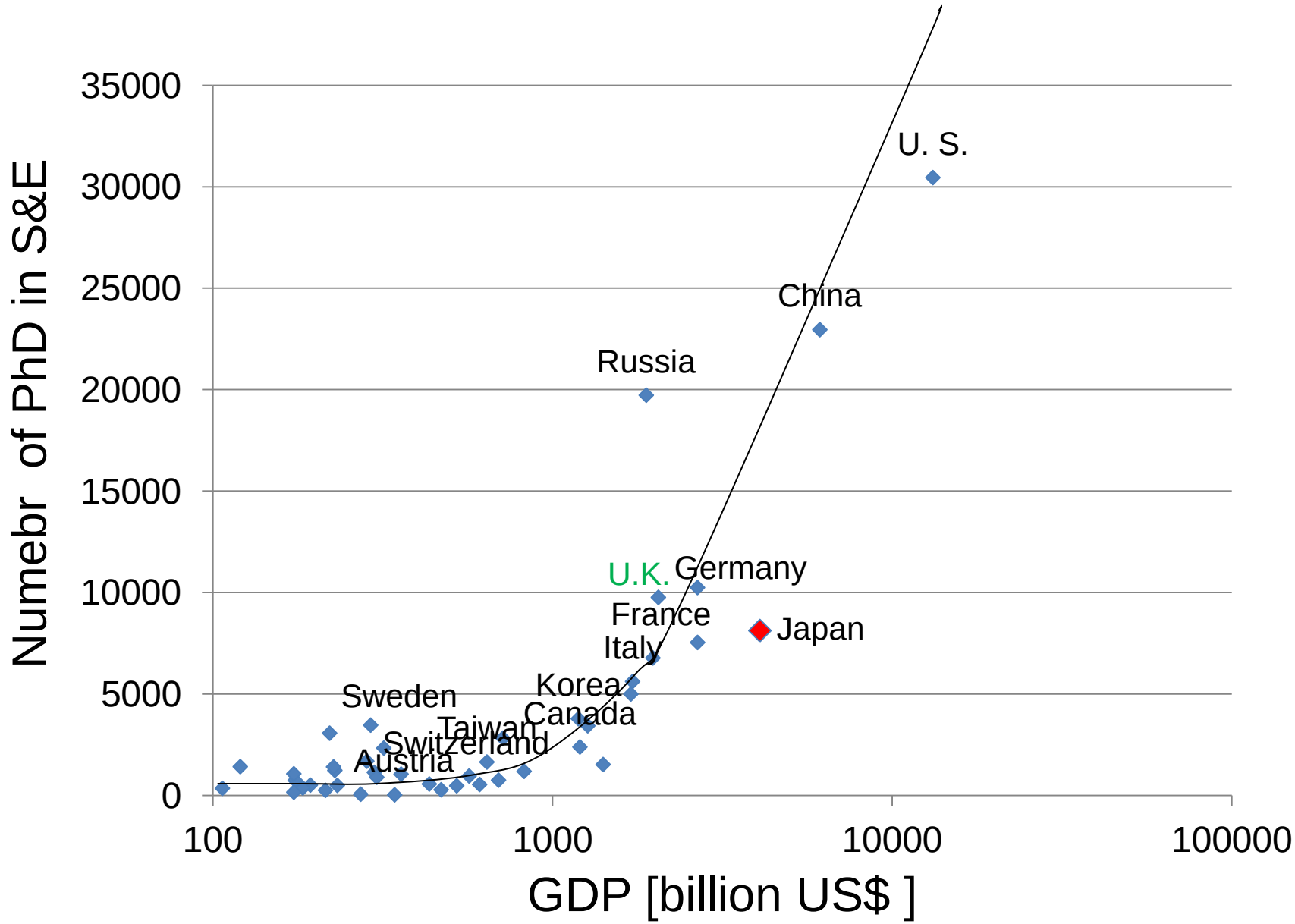
Bipolarization of PhD issues:

GS. Engineering: High job offer, but low advancement rate from UG to PhD

GS. Science: Job shortage, but high advancement rate from UG to PhD

GDP dependence on number of PhDs

Confidential



Roles of PhD in Company

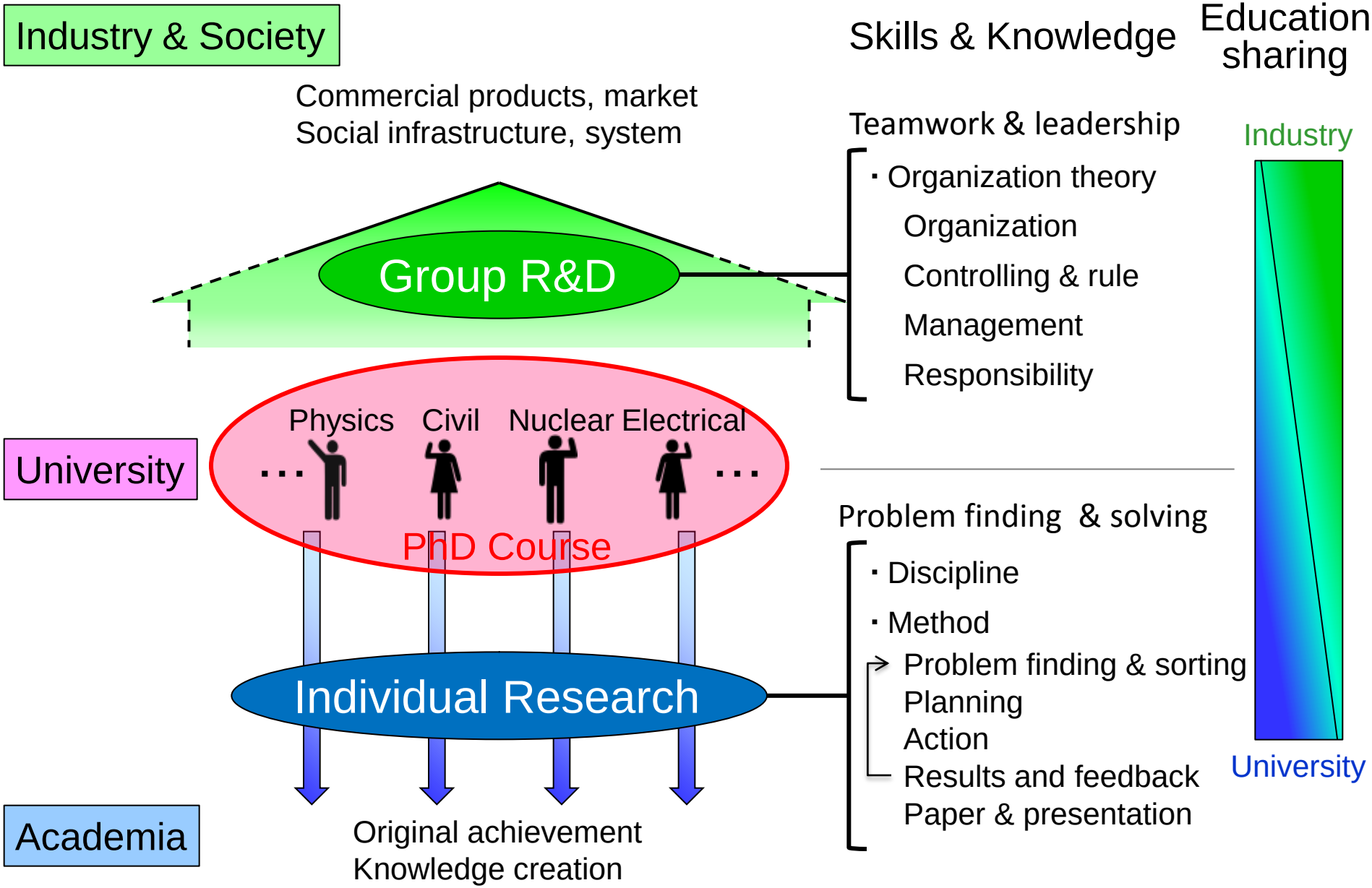
Division	Roles of PhD
R&D	research
Design and manufacturing	design, QC
Planning	marketing, information & analysis
Business	sales engineering, market creation

Comprehensive remarks

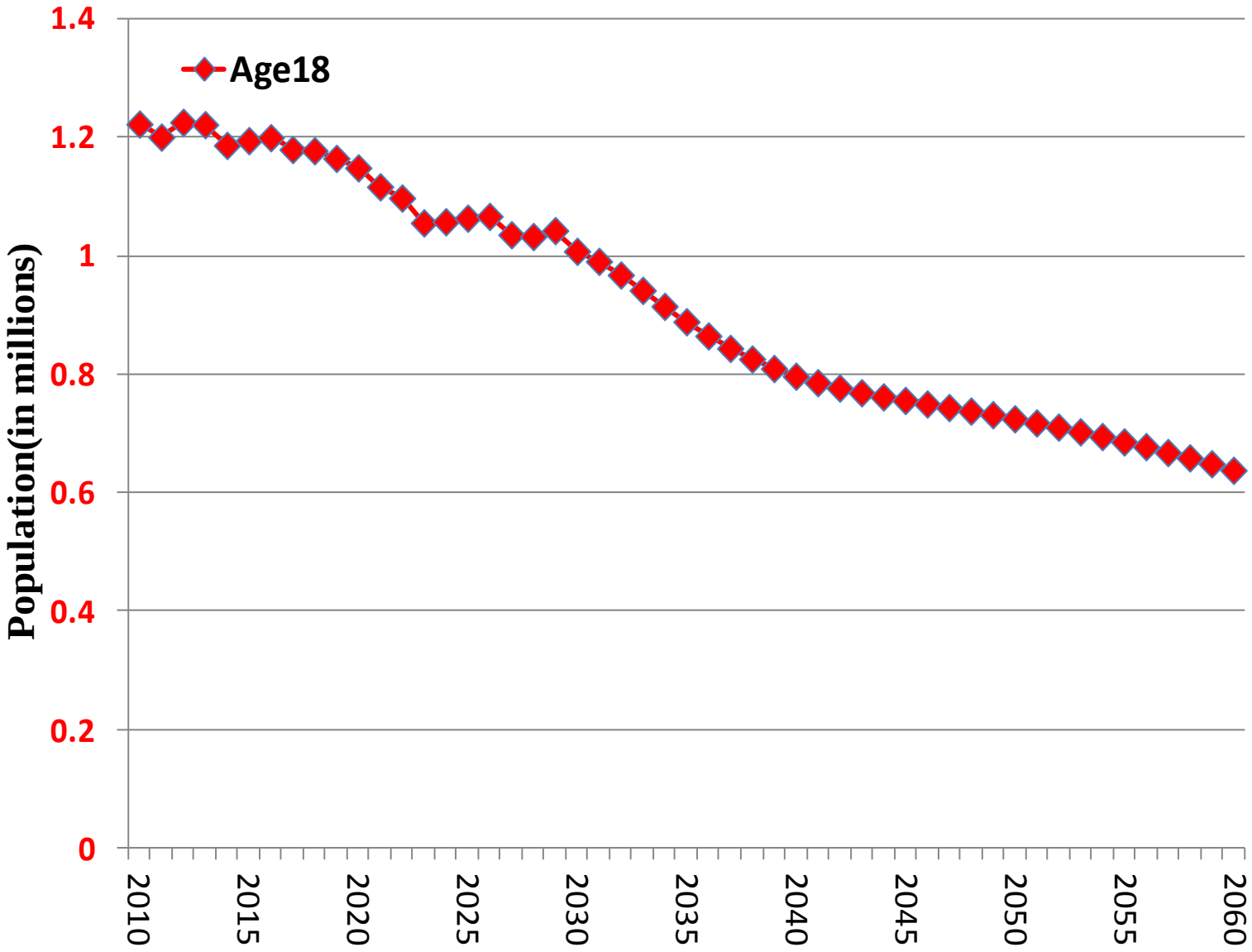
(IBM, Vice-President) What we expect from PhDs is problem finding and solving ability. Their expertise is second priority.

(Hitachi, Research Fellow) PhDs are talented people who are able to understand necessity of forefront technology, and they will open the brand-new market.

Concept of PhD Education in UT-Engineering Sector



18-year-old Demography of JAPAN



Human resource strategy

Condition deduced from the GDP-PhD relation and demography

Never cutting full quota of the PhD course to survive as a science and technology based nation despite the demography

Strategy

Globalization: Acquisition of excellent students and faculties from all over the world

Activation: Industry and social change for providing job and career opportunities to international PhDs

Harmonization: Cooperation among their homelands and Japan for mutual benefits

Policy and measures

Policy

Keeping the world top rank research power attracting excellent international students and faculties.

Improving internationalizing environments of education, research, administration, and college life.

Extending and fastening international academic networks

Concrete measures

1) Bilingual campus plan (～2020)

2) International course project (G30 program)

3) Networking (Deans Forum)

etc.,