Promotion of
Science of ST&I Policy Program
and Its New Trial

- from the viewpoint
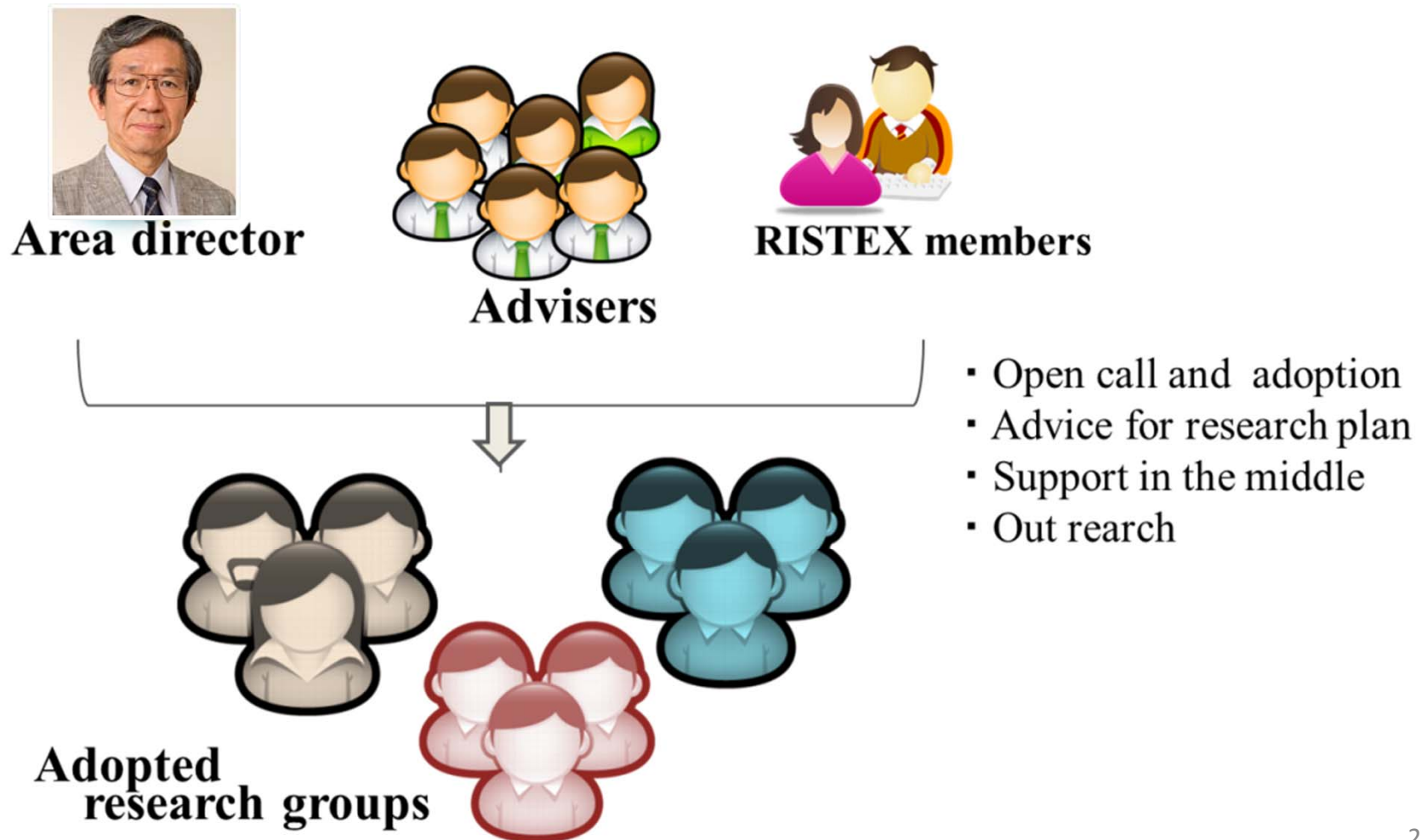#### of an adviser -

Prof. Hiroshi NAGANO
  Program Adviser of "Science of ST&I Policy"
Professor, National Graduate Institute for Policy Studies

RISTEX Funding Program of
" Science of ST&I Policy "
- Management System -

Area director

Advisers

RISTEX members

- Open call and adoption
- Advice for research plan
- Support in the middle
- Out rearch

Adopted research groups

Advisers

Advisers	Affiliate	Specialty , Sector etc.,
Ryuhei WAKASUGI	Professor Emeritus, Kyoto University	Economics
Tomohiro IJICHI	Professor, Seijo University	Innovation Studies
Shinichi KAMEI	Mitsubishi Research Institute, Inc.	Think tank, Nanotech
Tadamasa KIMURA	Professor, the University of Tokyo	Cultural anthropology
Hideko KUNII	Ricoh IT Solutions Co., Ltd. (formerly)	Chairperson, Software
Koji TANABE	Professor, Tokyo Institute of Technology	Innovation Management
Yoshifumi Nakata	Director-General, Institute for Technology, Enterprise and Competitiveness, Doshisha Univ.	Economic & Legal Studies
Hiroshi NAGANO	Professor, GRIPS	S&T Policy Studies
Ikkei MATSUDA	CEO, SARR,LLC	Incubator, Venture capital
Yoshifumi YASUOKA	Auditor, Research Organization of Information and Systems	Remote Sensing, Environmental Studies
Zentaro YAMAGATA	Professor, University of Yamanashi	Health Sciences, Medical Engineering
Michiko IGARASHI	Freelance Journalist	Journalism, Media

Project Promotion by Advisers

○ Selection of projects

     Inspection of the applications（6-8 app./year/Adviser）

     Interviews to the applicants

     Adoption by agreements among directors and advisers

○ Fostering of adopted projects ※

     "Mentor"（1 - 3 Projects / Adviser）

       Labo. Visit, Salon, Camp, ・・・・

※ by accumulation of experiences of funding in RISTEX

Project Promotion
by Advisers

Camp-style Discussion

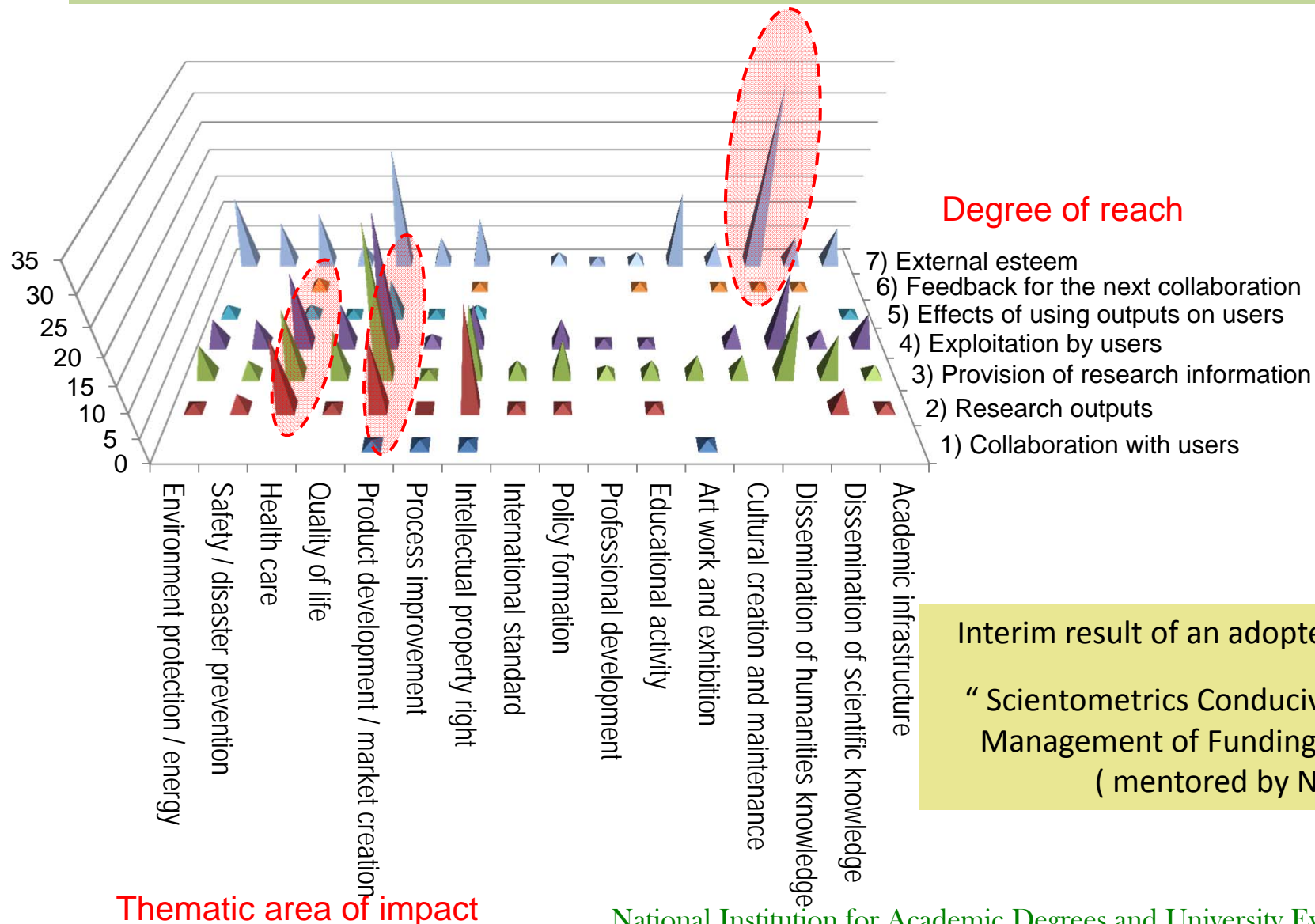Project Salon

Chances of frank communication
between researchers and policy-makers

Number of indicators according to the matrix of the degree of reach and the thematic area of impacts

Degree of reach

- 7) External esteem
- 6) Feedback for the next collaboration
- 5) Effects of using outputs on users
- 4) Exploitation by users
- 3) Provision of research information
- 2) Research outputs
- 1) Collaboration with users

Thematic area of impact (x-axis categories):
- Environment protection / energy
- Safety / disaster prevention
- Health care
- Quality of life
- Product development / market creation
- Process improvement
- Intellectual property right
- International standard
- Policy formation
- Professional development
- Educational activity
- Art work and exhibition
- Cultural creation and maintenance
- Dissemination of humanities knowledge
- Dissemination of scientific knowledge
- Academic infrastructure
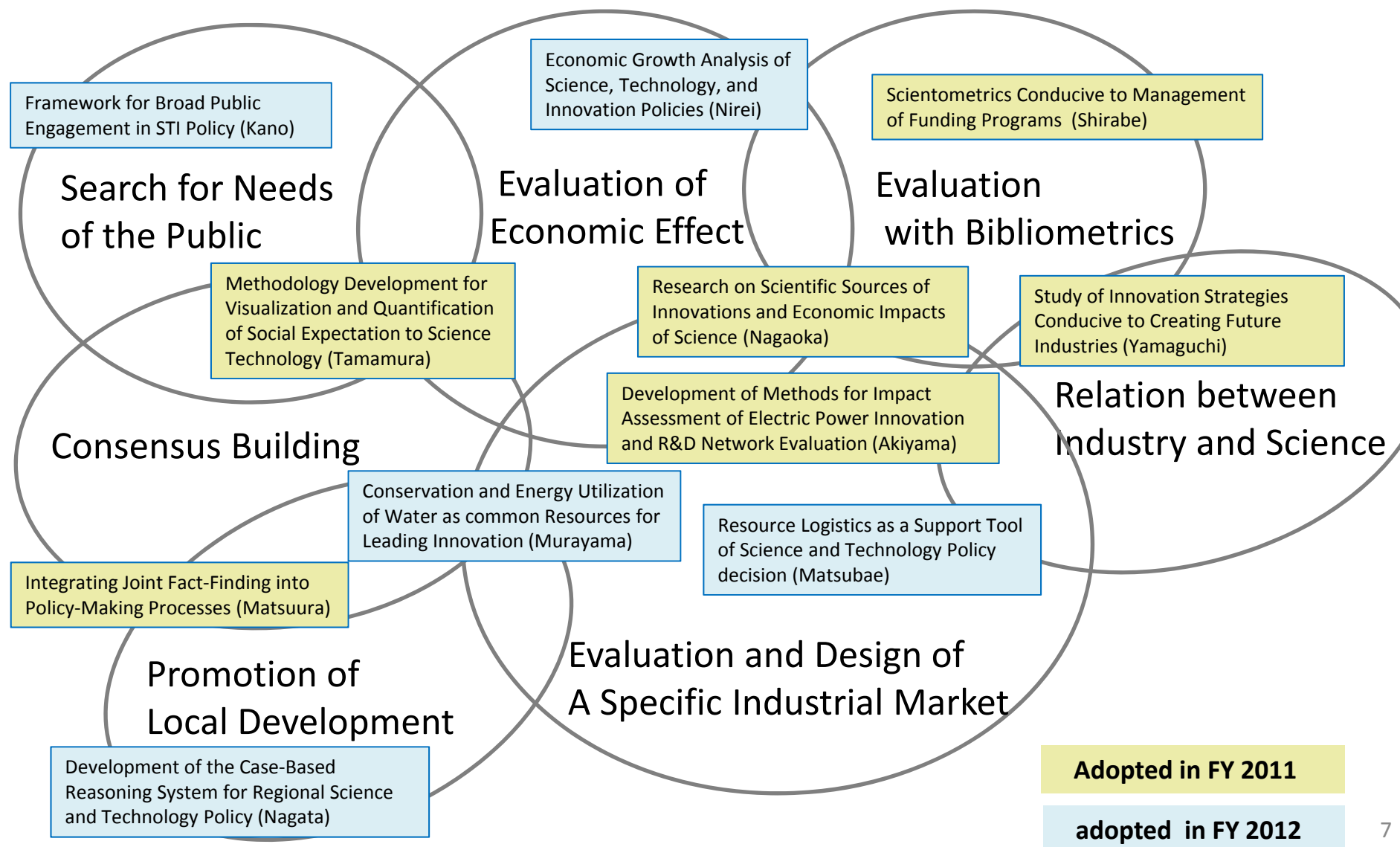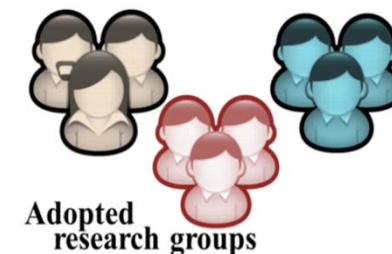
z-axis: 0, 5, 10, 15, 20, 25, 30, 35

Thematic area of impact

Interim result of an adopted project

" Scientometrics Conducive to
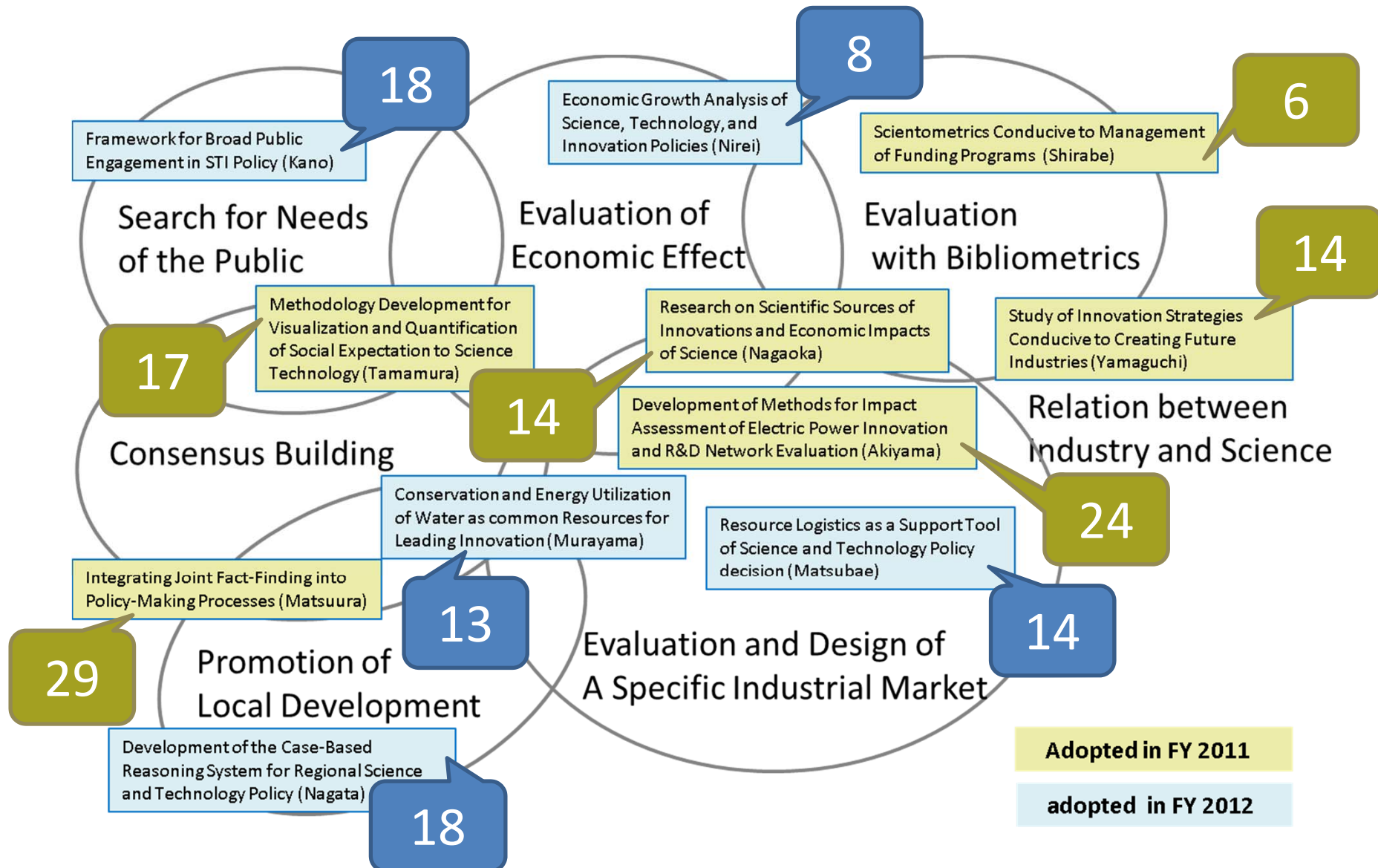Management of Funding Programs"
(mentored by Nagano AD)

National Institution for Academic Degrees and University Evaluation

Whole Picture of the Adopted Projects in 2011-2012

Adopted research groups

Framework for Broad Public Engagement in STI Policy (Kano)

Economic Growth Analysis of Science, Technology, and Innovation Policies (Nirei)

Scientometrics Conducive to Management of Funding Programs (Shirabe)

Search for Needs of the Public

Evaluation of Economic Effect

Evaluation with Bibliometrics

Methodology Development for Visualization and Quantification of Social Expectation to Science Technology (Tamamura)

Research on Scientific Sources of Innovations and Economic Impacts of Science (Nagaoka)

Study of Innovation Strategies Conducive to Creating Future Industries (Yamaguchi)

Consensus Building

Development of Methods for Impact Assessment of Electric Power Innovation and R&D Network Evaluation (Akiyama)

Relation between Industry and Science

Conservation and Energy Utilization of Water as common Resources for Leading Innovation (Murayama)

Resource Logistics as a Support Tool of Science and Technology Policy decision (Matsubae)

Integrating Joint Fact-Finding into Policy-Making Processes (Matsuura)

Evaluation and Design of A Specific Industrial Market

Promotion of Local Development

Development of the Case-Based Reasoning System for Regional Science and Technology Policy (Nagata)

Adopted in FY 2011

adopted in FY 2012

7

Participants   Total : 163

・・・ in University, Institute, Firms, etc.

8 | Framework for Broad Public Engagement in STI Policy (Kano) | 18

Economic Growth Analysis of Science, Technology, and Innovation Policies (Nirei) | 8

Scientometrics Conducive to Management of Funding Programs (Shirabe) | 6

Search for Needs of the Public

Evaluation of Economic Effect

Evaluation with Bibliometrics

Methodology Development for Visualization and Quantification of Social Expectation to Science Technology (Tamamura) | 17

Research on Scientific Sources of Innovations and Economic Impacts of Science (Nagaoka) | 14

Study of Innovation Strategies Conducive to Creating Future Industries (Yamaguchi) | 14

Consensus Building

Development of Methods for Impact Assessment of Electric Power Innovation and R&D Network Evaluation (Akiyama) | 24

Relation between Industry and Science

Conservation and Energy Utilization of Water as common Resources for Leading Innovation (Murayama) | 13

Resource Logistics as a Support Tool of Science and Technology Policy decision (Matsubae) | 14

Integrating Joint Fact-Finding into Policy-Making Processes (Matsuura) | 29

Promotion of Local Development

Evaluation and Design of A Specific Industrial Market

Development of the Case-Based Reasoning System for Regional Science and Technology Policy (Nagata) | 18
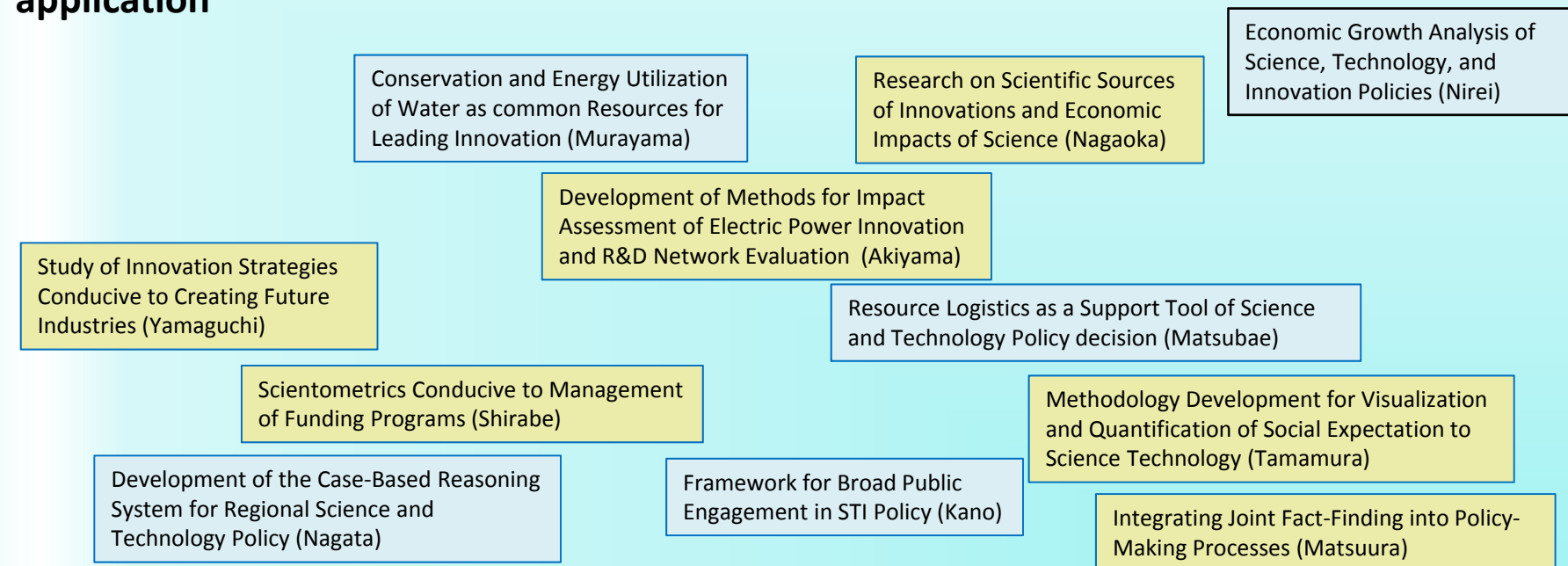
Adopted in FY 2011

adopted in FY 2012

8

Relation between 4 Targets of the Open Call and the Adopted Projects

FY 2011

FY 2012

・ **To design a multistage process from basic research, to social application of outcomes, to evaluation of that application**

・**To develop methods for measuring the economic and social impact of R&D investment**

Conservation and Energy Utilization of Water as common Resources for Leading Innovation (Murayama)

Research on Scientific Sources of Innovations and Economic Impacts of Science (Nagaoka)

Economic Growth Analysis of Science, Technology, and Innovation Policies (Nirei)

Development of Methods for Impact Assessment of Electric Power Innovation and R&D Network Evaluation (Akiyama)

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Framework for Broad Public Engagement in STI Policy (Kano)

Integrating Joint Fact-Finding into Policy-Making Processes (Matsuura)

・**To build an effective research framework to form policies based on objective evidence**

・**To ensure proper communication among policy makers, the scientific community and the public in order to promote the application of research findings in society**

Checking points of the advisers

For 2011 adopted projects （more 1 year）

Confirmation of final target of each project
Integration of research pieces in one project
Bridging to policy-makers and stake-holders
Discussion about expandability & universality
of the conclusions

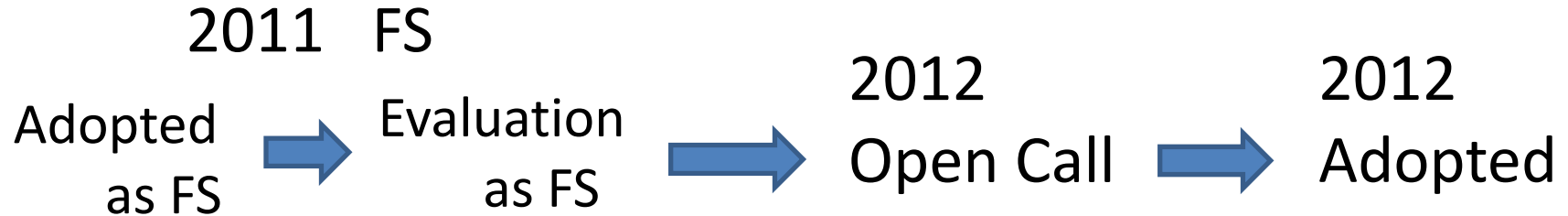For 2012 adopted projects （a half year from started ）

Validity of each project plan
Effectiveness in each project team
Activation of members

Feasibility Study (FS)

- Support for applications which are good in targeting but insufficient in taking shape of the plan.
- Support to preliminary investigations to shape the plan to apply the next year's open call.

2011 FS

Adopted as FS ➡ Evaluation as FS ➡ 2012 Open Call ➡ 2012 Adopted

2012 FS

Adopted as FS ➡ Evaluation as FS ➡ 2013 Open Call ➡ ? ?

New Trials in Selection Process in 2013

Setting two frames + Prioritization to Frame 2

【1】Focus on novel methods and evaluation
・ Supply more useful evidence for ST&I policy-making
・ Originality and uniqueness

【2】Solving issue-oriented topics
・ Targeting to solution for specific social issues
・ Containing of varied phases from S&T research to discussion on institution setting in order to realize innovation

Introduction of two step selection process in order to brush up applications

【1st step】

Selection to brief concept paper in the view of two frames

− Giving advices −

【2nd step】

Selection to detailed concept paper and presentation
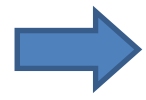
Meanings of the new selection process

Framing and prioritization
- Clarification of the program target
  to applicants

2-step selection process
- Brush up the applications

➡ More appropriate researches

➡ Expansion in
  human resources development
  on "Science for ST&I Policy"

Expectation to funding program

- ✓ Recognition on "Science of ST&I policy"

- ✓ Promotion of interdisciplinary research including natural science and humanities/social science

- ✓ Bridging between researchers and policy-makers

- ✓ Human resources development