

JST-CNRS Strategic International Cooperative Program 2007-2010

“Knowledge-based Discovery in Systems Biology”



Andrei Doncescu

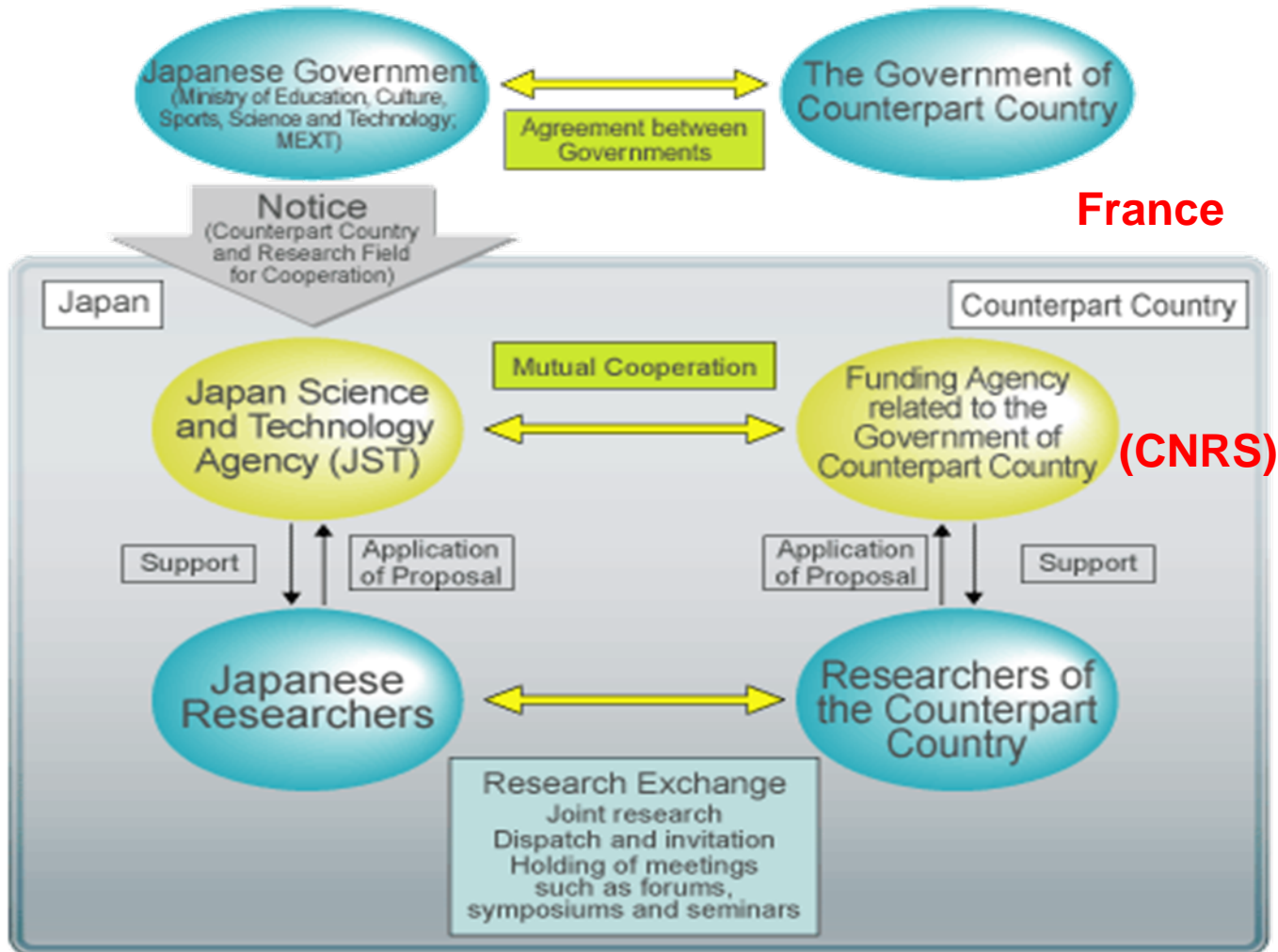
LAAS-CNRS, Toulouse, France.

Katsumi Inoue

National Institute of Informatics, Tokyo, Japan.

Strategic International Cooperative Program

System of Strategic International Cooperative Program



Strategic International Cooperative Program

France 2006 / 2007

1. *Provably Secure Software Technology and its Applications — with the Special Focus on Smart Card and GRID*
2. *NEGST (Next Grid Systems and Techniques): International Collaboration and Promotion on Interoperability and Advanced Technologies of Grid*
3. *Measurement and Modeling for Emerging Internet Applications and Security Threats*
4. *Software Development for 3-D Image Analysis of Biological Molecules in a High Performance Computing Environment*
5. *Mobility in Next All Wireless Internet*
6. **Constructing a federation model for Web-based knowledge, and applying it to ubiquitous knowledge discovery for Grid modelling**
7. **Phononic Crystal: a new Acoustic Material System**
8. **Research and Development of international matrix solver prediction system on French-Japan international grid computing environment**
9. **Knowledge-based Discovery in Systems Biology**
10. **Information Processing and Control for Robotized Endoscopic Surgery**

Franco-Japanese Collaboration

- **Goals**

- Modeling biological systems
- Inference-based Hypothesis-Finding for Systems Biology

- **France Team**

- provides biological data (*S. Cerevisiae*, *E. Coli*, etc.)
- representation/management of uncertain data

- **Japan Team**

- provides inference engines (SOLAR, CF-Induction, etc.)
- provides probabilistic modeling tools (PRISM)

Japanese Members

1. **Katsumi Inoue (NII)** – [Organization] Inference, Representation, Theory
2. **Asao Fujiyama (NII)** – Molecular Biology, Bioinformatics
3. **Taisuke Sato (Tokyo Inst. Tech.)** – Probabilistic Reasoning/Modeling
4. **Yoshitaka Kameya (Tokyo Inst. Tech.)** – Probabilistic Modeling
5. **Koji Iwanuma (Univ. Yamanashi)** – Inference, Data Mining, Theory
6. **Hidetomo Nabeshima (Univ. Yamanashi)** – Inference, Planning, SAT
7. **Chiaki Sakama (Wakayama Univ.)** – Theory, Nonmonotonic Reasoning
8. **Yoshitaka Yamamoto (SOKENDAI)** – Inductive Logic Programming

J. Tools

1. **Katsumi Inoue (NII)** – SOLAR, CF-Induction, fc-HAIL (w. Oliver Ray)
2. **Asao Fujiyama (NII)** – Bio Portal
3. **Taisuke Sato (Tokyo Inst. Tech.)** – PRISM, PPM
4. **Yoshitaka Kameya (Tokyo Inst. Tech.)** – PRISM
5. **Koji Iwanuma (Univ. Yamanashi)** – SOLAR, Sequential DM
6. **Hidetomo Nabeshima (Univ. Yamanashi)** – SOLAR, SAT Solver/Planner
7. **Chiaki Sakama (Wakayama Univ.)** – ASP
8. **Yoshitaka Yamamoto (SOKENDAI)** – CF-Induction