

# **Business opportunities generated from collaboration and exchange among industry, academia and government**

**Introduction of TAMA Association's activities**

**The 6<sup>th</sup> Regional Cluster Seminar  
December 17, 2003**

**Hideto Okazaki  
Director of the Executive Office  
TAMA Industrial Vitalization Association Inc.**

# ***Summary of TAMA***

# What is TAMA?

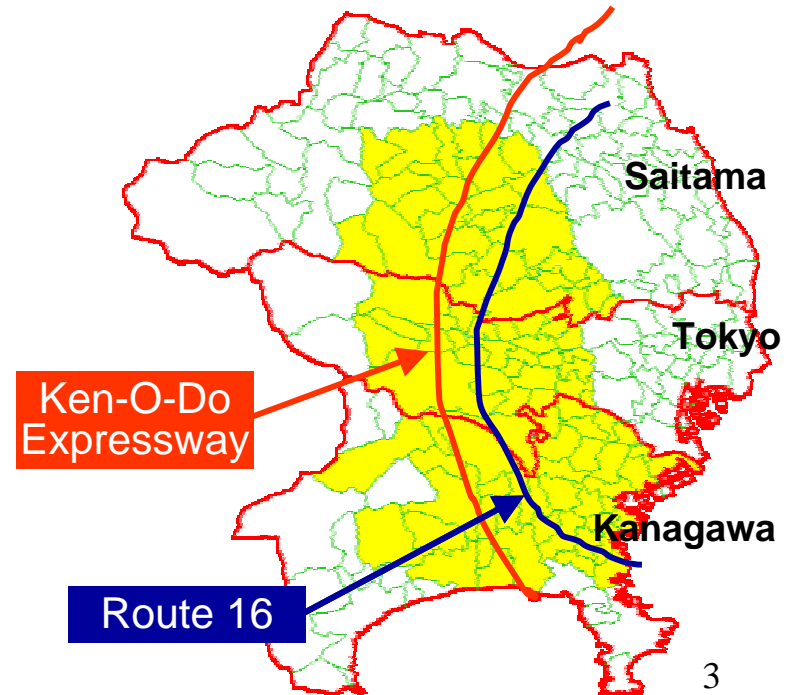
It is a wide area covering the following regions:

The **southwest part of Saitama prefecture** (including Kawagoe, Sayama, Tokorozawa, Iruma, and Hanno); the **Tama area in Tokyo** (cities such as Hachioji, excluding the 23 wards of Tokyo); and the **central part of Kanagawa prefecture** (Shonan area including Sagami-hara and Fujisawa)

**TAMA = Technology Advanced Metropolitan Area**



- The area is located alongside Route 16.
  - Area: approx. 3,000 km<sup>2</sup>
  - Population: approx. 10 million
  - Number of municipalities: approx. 74
- Inland industrial area
- Further development is expected thanks to the construction of Metropolitan Inner City Expressway (Ken-O-Do Expressway)



## ***Potential of the TAMA region***

- TAMA takes pride in being a technologically advanced metropolitan area that has **twice** the shipment value of Silicon Valley.

(Number of business establishments: approx. 380,000 locations/  
product shipment value: approx. 24 trillion yen)

- TAMA is filled with universities.

(Universities for science and technology number: 40; of which TAMA  
member universities number: 23)

- TAMA is filled with prominent small- and medium-sized companies.

- Companies that are developing new products and having strong market capturing capabilities
- Companies that excel in processing technology

# Member universities

○ Number of member universities: 35 (national: 4/public: 2/private: 25/other: 4)

Tokyo Metropolitan University, Tokyo Metropolitan Institute of Technology, Yokohama National University, Tokyo Denki University, Kogakuin University, Hosei University, Tokyo University of Agriculture and Technology, Saitama University, Meiji University, The University of Electro-Communications, Soka University, Chuo University, Keio University, Musashi Institute of Technology, Kitasato University, Tama Art University, Tama University, Takushoku University, Sanno University, Toyo University, Shobi University, Nippon Institute of Technology, Aoyama Gakuin University, Tokyo University of Technology, Kanagawa Institute of Technology, Surugadai University, Tokyo Keizai University, Tokyo University of Pharmacy and Life Science, Josai University, Seikei University, Aijia University, Nippon Engineering College of Hachioji, Technos International College, Tokyo National College of Technology, Salesian Polytechnic

○ Number of universities whose professors are members: 14

Hitotsubashi University, Kanto Gakuen, Bunri University of Hospitality, Waseda University, Yokohama City University, Kokugakuin University, Rissho University, Tokyo University of Pharmacy and Life Science, Obirin University, Kanagawa University, Tamagawa Gakuen, Aomori University, Kaetsu University, Polytechnic University

# Member companies that produce new products

## Top leading TAMA member companies (based on research in 2002)

Company Name	Capital (in Yen)	Location	Domestic share	Product name
Resuka Co., Ltd.	24 million	Tachikawa	100	Hot-dip plating simulator
			80	Bonding tester
Stack Electronics Co., Ltd.	60 million	Akishima	100	Oscilloscope probe
			70	Antenna cell components for ground stations for 3G mobile
Fuchu Giken Co., Ltd.	20 million	Fuchu	100	Wireless optical bidding system
Soken Kagaku Co., Ltd.	590 million	Sayama	70	N-methylol acrylamide
Denshi Seigyo Kokusai Co., Ltd.	50 million	Hamura	70	Impulse winding test machine

TAMA area is filled with the following companies:

- 1) Companies that have been focusing on developing niche products
- 2) Companies that develop original products based on their specialized technologies and know-how

# ***Purpose for establishment of TAMA***

To realize the potential of the TAMA region,  
**an organization that coordinates** the following matters is necessary:

- Industry-university joint research (**industry-academia** collaboration)
- Ordering and joint research between companies (**inter-corporate** collaboration)



- **TAMA Industrial Vitalization Council was established in April 1998.**
  - It took its first steps as a **voluntary organization**.
  - It was launched with **328** members in total (including 193 companies, 20 universities, and 17 administration members).

- **TAMA Industrial Vitalization Association Inc. was established in April 2001.**
  - It became an **aggregate corporation**.
  - It operates with **590** members in total (including 290 companies, 34 universities, and 20 administration members).

# Directors of TAMA Association and the executive office

## ○ Board members (28 directors, 2 auditors)

- |                             |                         |   |
|-----------------------------|-------------------------|---|
| • Chairman (director):      | <b>Yuji Furukawa</b>    | <b>Professor of the Faculty of Technology,<br/>Tokyo University of Agriculture and<br/>Technology</b> |
| • Vice-chairman (director): | <b>Yoji Kawamoto</b>    | <b>Chairman of Toho Electronics Inc. (Kanagawa)</b>   |
| • Vice-chairman (director): | <b>Takeo Kato</b>       | <b>Chairman and director of Fuji Electric Co. Ltd.<br/>(Tokyo)</b>                                    |
| • Vice-chairman (director): | <b>Shigeki Sugiyama</b> | <b>President of Sigma Koki Co. Ltd. (Saitama)</b>   |
| • Executive director:       | <b>Makoto Ibuka</b>     | <b>President of Tama-TLO Inc.</b>   |

## ○ Executive Office

- Address: Hachioji Square Bldg., 11th floor, Hachioji-shi, Tokyo
- Number of employees: 9
  - 4 regular employees  
(R&D, accounting, administration, web management);
  - 5 loaned employees
    - One each from local governments (Sagamihara City,  
Hachioji City, and Sayama City)
    - 2 from private sector (Seibu Shinkin Bank)

Hachioji Square Bldg.

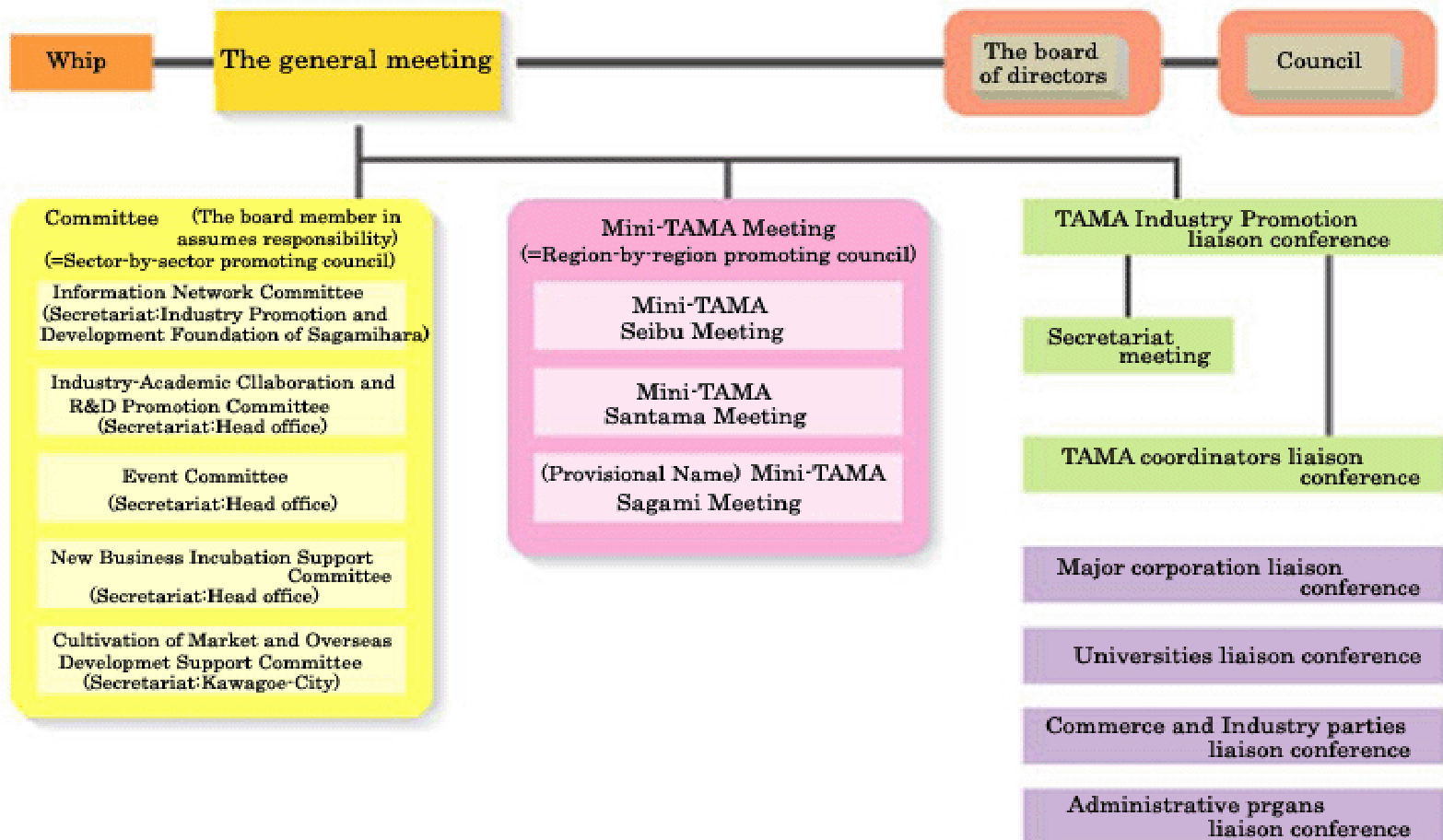




# TAMA's Organization

In the TAMA Association, the general meeting is the supreme decision-making institution and the board of directors is a business operation institution.

[1] The committee (Sector-by-sector promoting council) and [2] Mini-TAMA Meeting (Region-by-region promoting council) actually implement business operations with impetus.



# TAMA support organizations *TAMA is backed with local support*

**Sayama City** ((14)- dispatch of personnel to the secretariat, outsourcing)

**Sayama Chamber of Commerce and Industry** ((12)- implementation of national coordinating activity support program to support company visits by members, (13)- cooperation for Mini-TAMA meetings)

**Kawagoe Chamber of Commerce and Industry**

((10), (11) cooperation for event service, (13)- cooperation for Mini-TAMA meetings)

**Metropolis of Tokyo** ((13) dispatch of personnel to the secretariat, outsourcing)

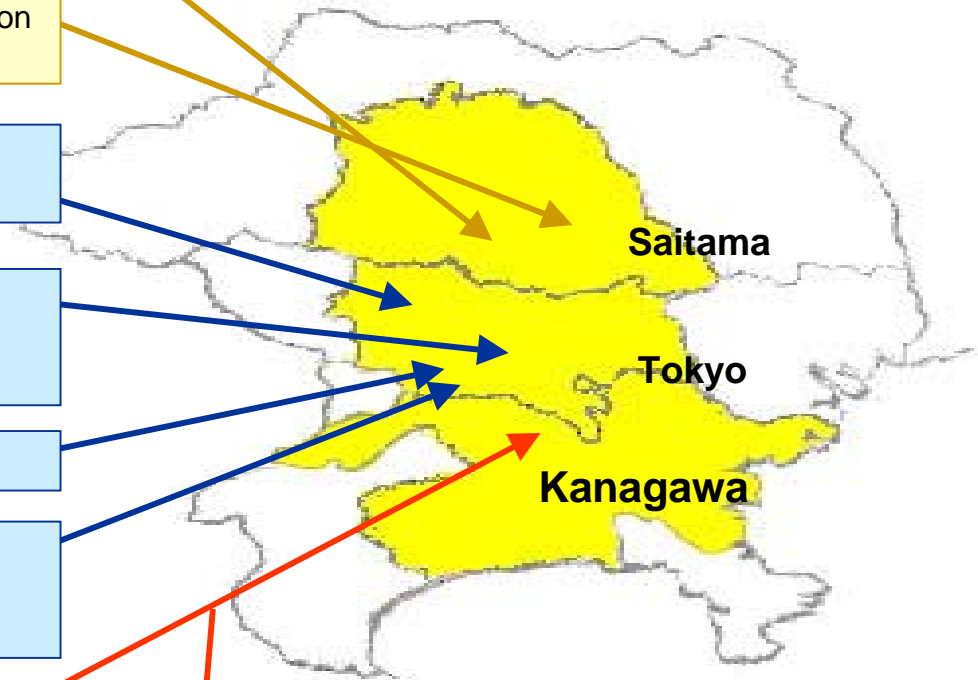
**Seibu Shinkin Bank** ((13)- dispatch of personnel to the secretariat, (14) cooperation for Mini-TAMA meetings, (15)- tie-up for incubation center)

**Fuji Electric Co. Ltd.** ((13)- tie-up for incubation center)

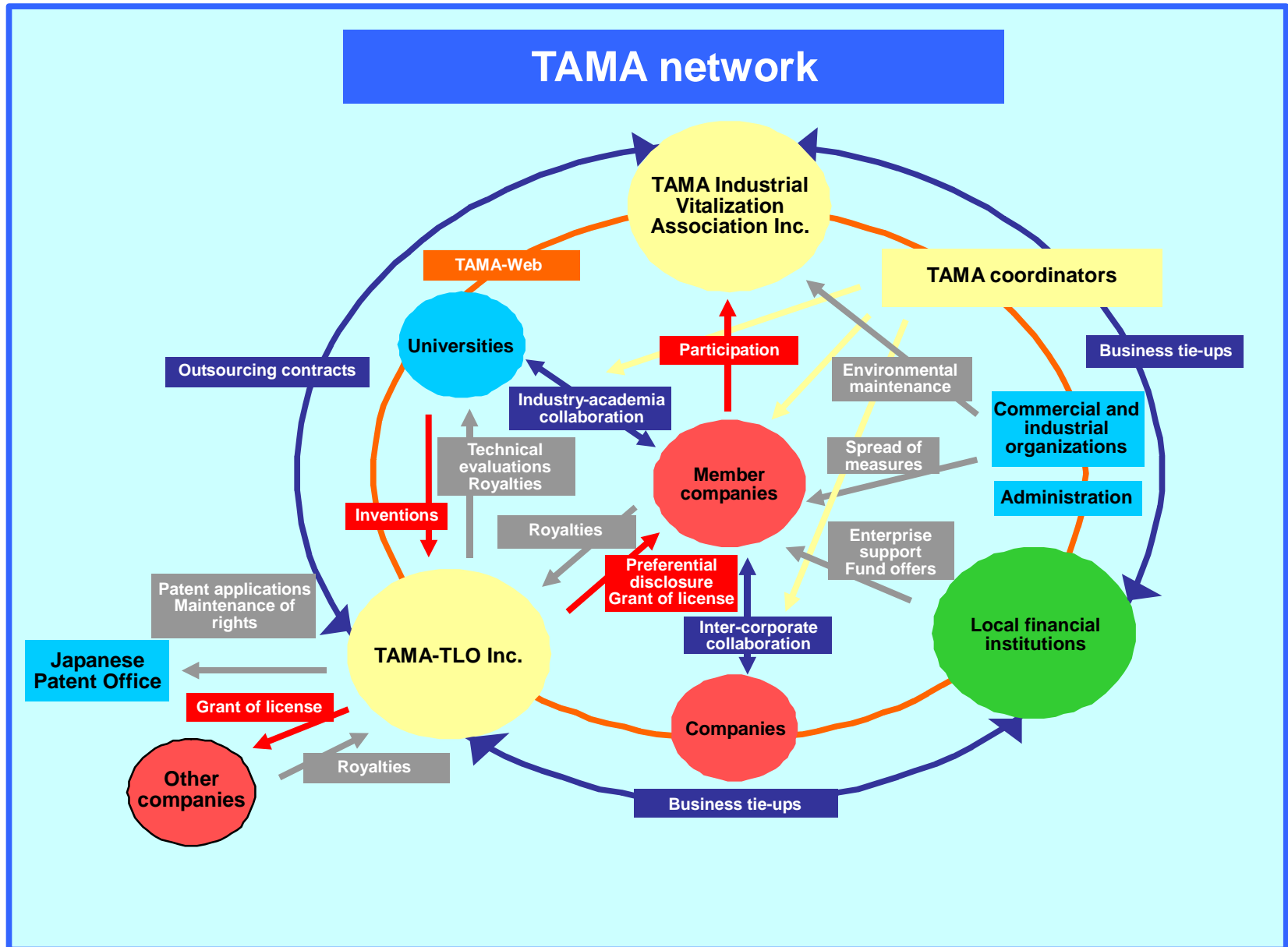
**Hachioji City** ((13)- provision of office premises free of charge, (14) dispatch of personnel to the secretariat, outsourcing)

**Sagamihara City** ((13)- dispatch of personnel to the secretariat, (14) outsourcing)

**Industry Promotion and Development Foundation of Sagamihara** ((10)- operation of information network center, (13) secondary office in charge of information network service)



# TAMA players



# TAMA Association Network

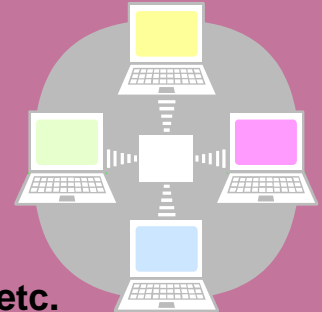


## Human resources

- Many experts (coordinators)
- Utilization of staff from major companies, etc.

## Goods resources (information)

- Network maintenance
- Distribution of information
- Building of databases, etc.



***TAMA Association Resources 590*** *organizational/individual members*  
***(290 companies, 35 universities, 20 municipalities)***

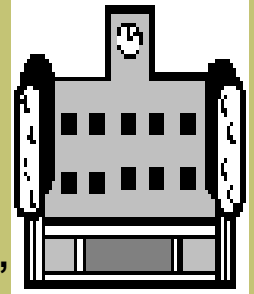


## Capital resources

- Governmental support (subsidies)
- Injection of private fund (banks, VC), etc.

## Collaborative organizations

- Commercial and industrial organizations
- Universities and research institutions
- Local support organizations, etc.



**Supporting small- and medium-sized companies  
by combining local forces**

# ***TAMA Activities***

# ***TAMA activities list***

## **1. Information network service**

**(Secretariat: Industry Promotion and Development Foundation of Sagamihara)**

Promotion of registration to the product and researcher databases, introduction of IT to member companies, formulation of new ordering system (WEB-EDI), etc.

## **2. Industry-academia collaboration and R&D promotion service**

**(Secretariat: Head office)**

Patent strategy seminar, internship service, coordination for implementing new local consortium service (outsourcing service for technological R&D), etc.

## **3. Event service**

**(Secretariat: Head office)**

Technological exchange exhibitions, order exchange meetings, presentation of joint research results, etc.

## **4. New business incubation support service**

**(Secretariat: Head office)**

Business plan HSJ project, promotion of human resource mobility, etc.

## **5. Cultivation of market and overseas development support service**

**(Secretariat: Kawagoe City)**

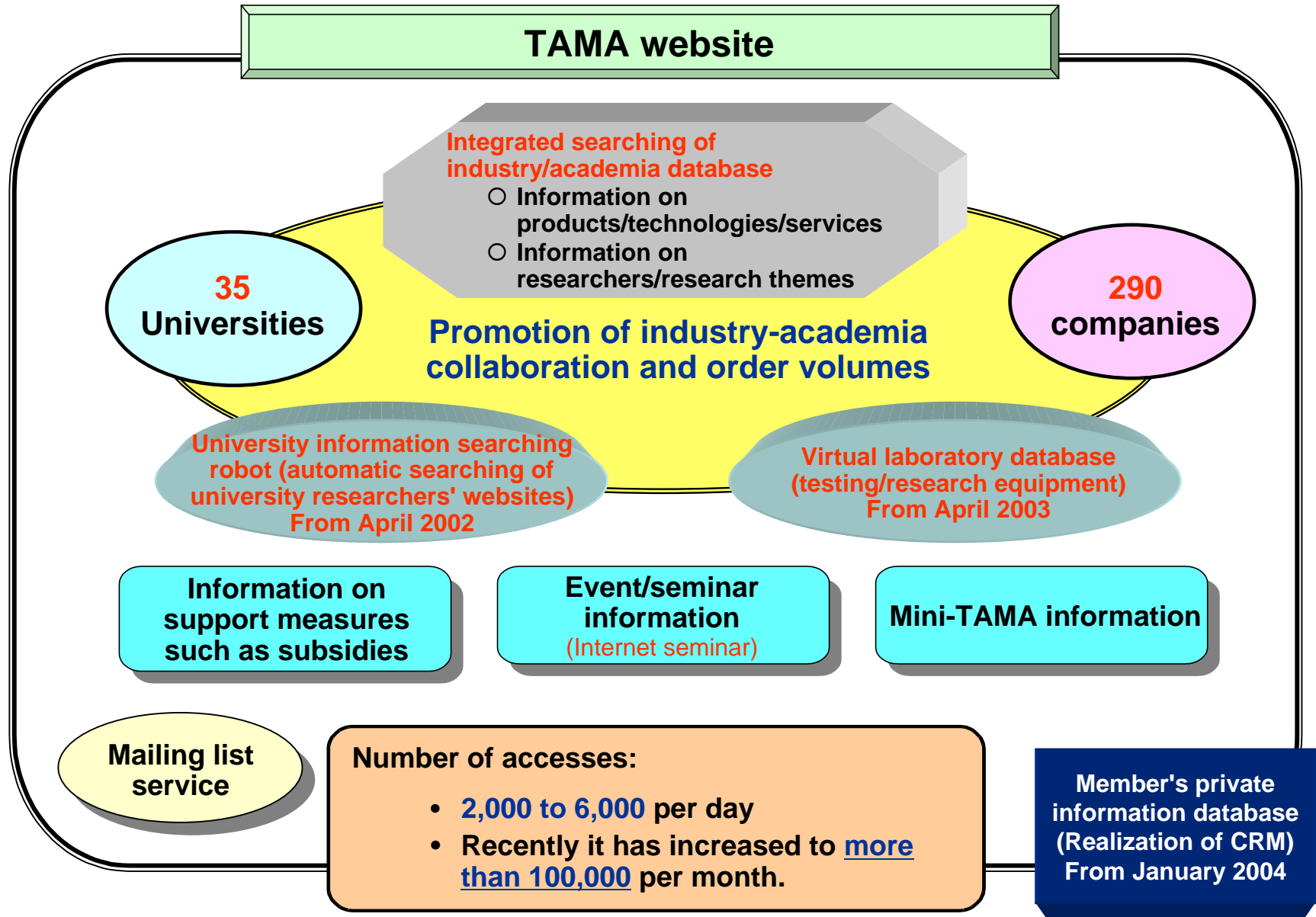
Seminar on how to cultivate markets, cross-industrial matching sessions, support for participation in overseas exhibitions, etc.

○ **“Business Solutions Companies Visits,” “Mini-TAMA meetings”** (community interaction)

○ **Collaboration with local “Entrepreneur Support Centers” and “Financial Institutions”**

# Information network service

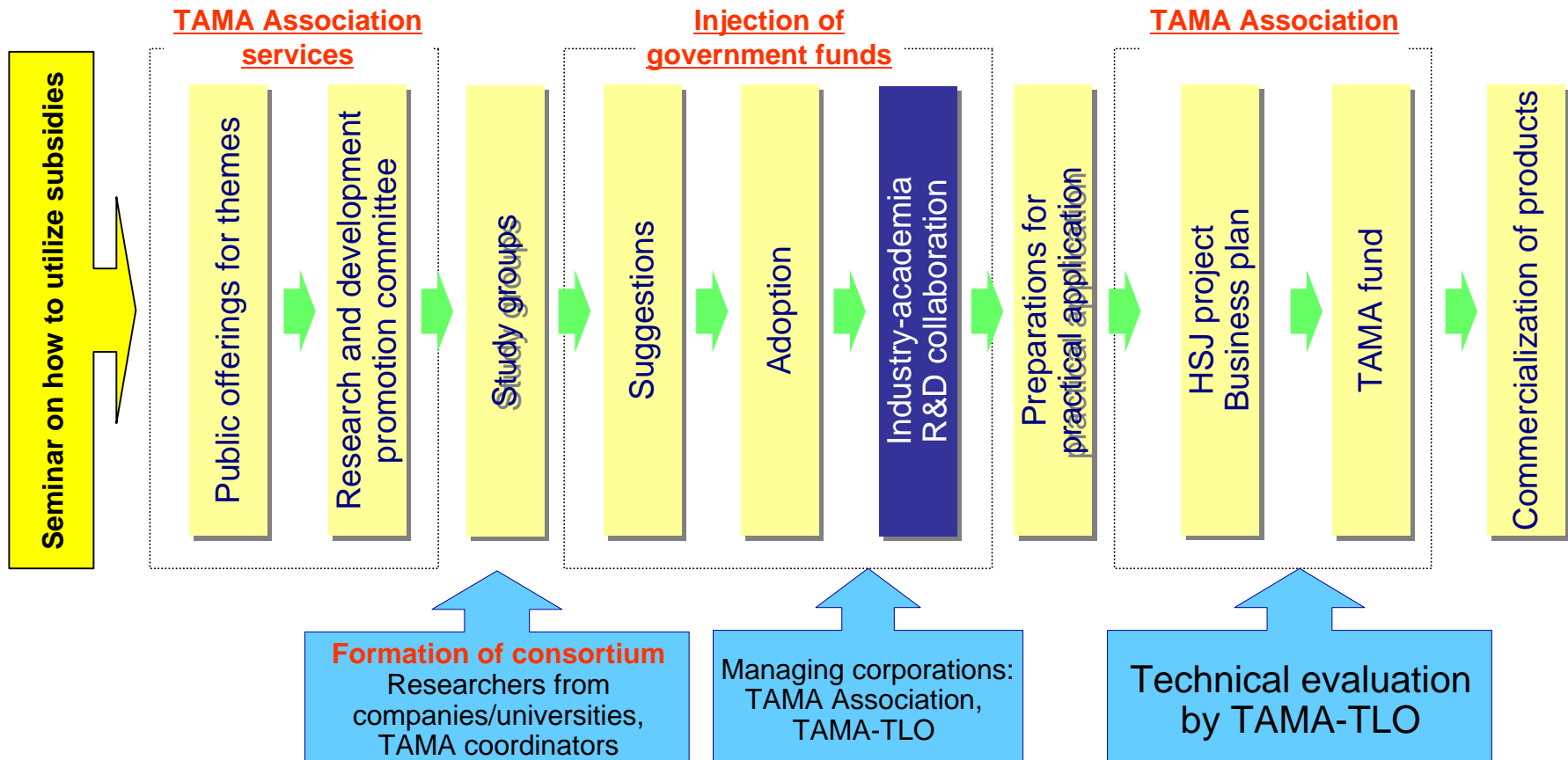
*provision and exchange of information through active use of website*



# Industry-academia collaboration and R&D promotion service

*cultivating technological R&D projects*

**TAMA Association supports practical application of joint studies between industry and academia from the R&D stage to commercialization of products in the following process.**





# **Event service** *Business matching sessions*

## **Business matching sessions tied up with Seibu Business Fair**

**Date: Friday, May 16, 2003**

**Participants: 28 companies**

(R&D division: 14/Outsourcing division: 14)

**Ordering companies: 24 major and medium-sized companies**

**Resulted in  
over 100 million yen  
in orders last year!**

**Presentations**

**Individual  
business  
meetings**

**Social  
gathering  
party**



**3 training sessions  
prior to the matching  
sessions**

- 1) Training on how to prepare presentation materials with PowerPoint
- 2) Preliminary evaluation of presentation by experts
- 3) Rehearsal of presentation (10-minute presentation)

# New business incubation support service

**Business plan HSJ project** the powerful support of an expert team

3

**H = Hop**

## Presentation seminar

- Learn effective presentation skills
- Experts will evaluate presentations and give advice

**S = Step**

## Business plan contest

- Contest for business plans that cleared document examinations
- For those considered as outstanding plans, incentives will be given.  
(Outstanding award: 1, Incentive award: 2)

**J = Jump**

## Matching sessions with VCs, etc.

- Matching sessions in which participants who won awards in the contest make presentations to VCs, etc., and carry out individual business meetings.

**Support**

## Expert team (7 experts)

Persons in charge of new business/technology at major companies, a former president of a major marketing company, staff from a company specialized in marketing, a certified public accountant, a certified management consultant, and a small- and medium-enterprise management consultant.

At the business plan contest

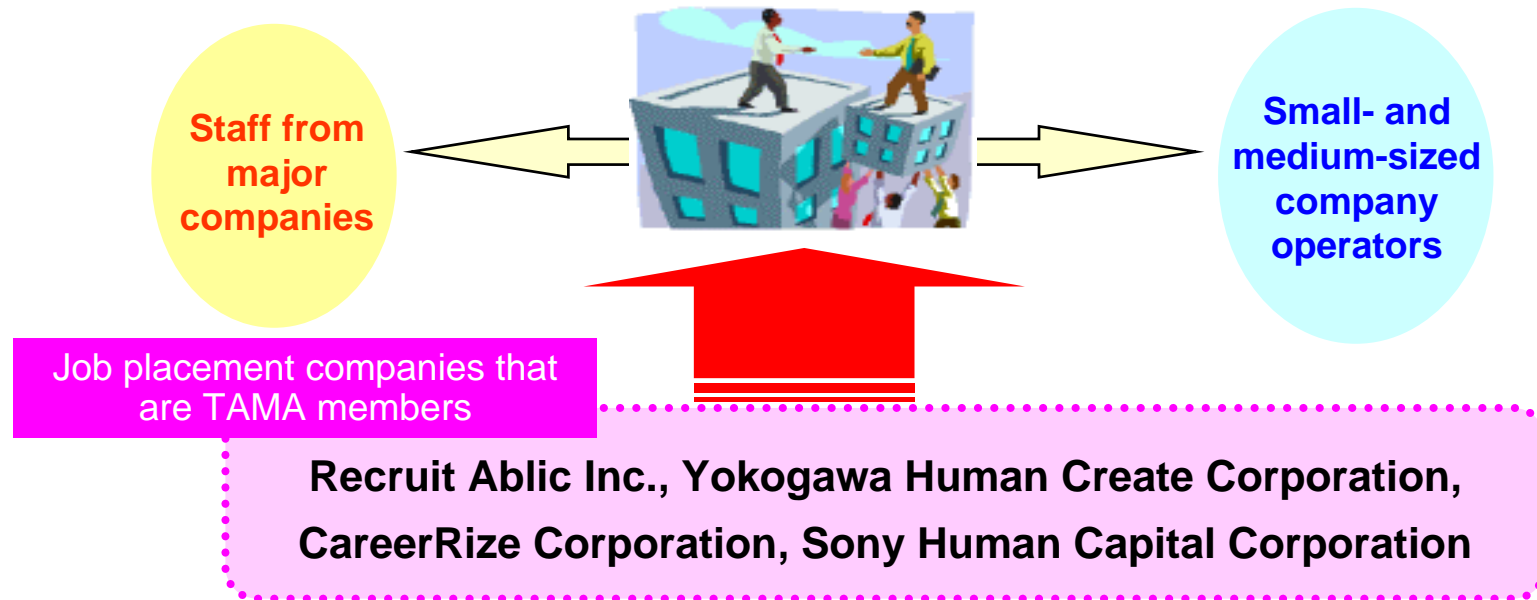


At the matching sessions with VCs, etc.



# *New business incubation support* *promoting mobility of human resources*

## Matching scheme



## Achievements in FY 2002

25 companies requested

↓  
65 candidates recommended in writing

↓  
29 candidates remained for the interview

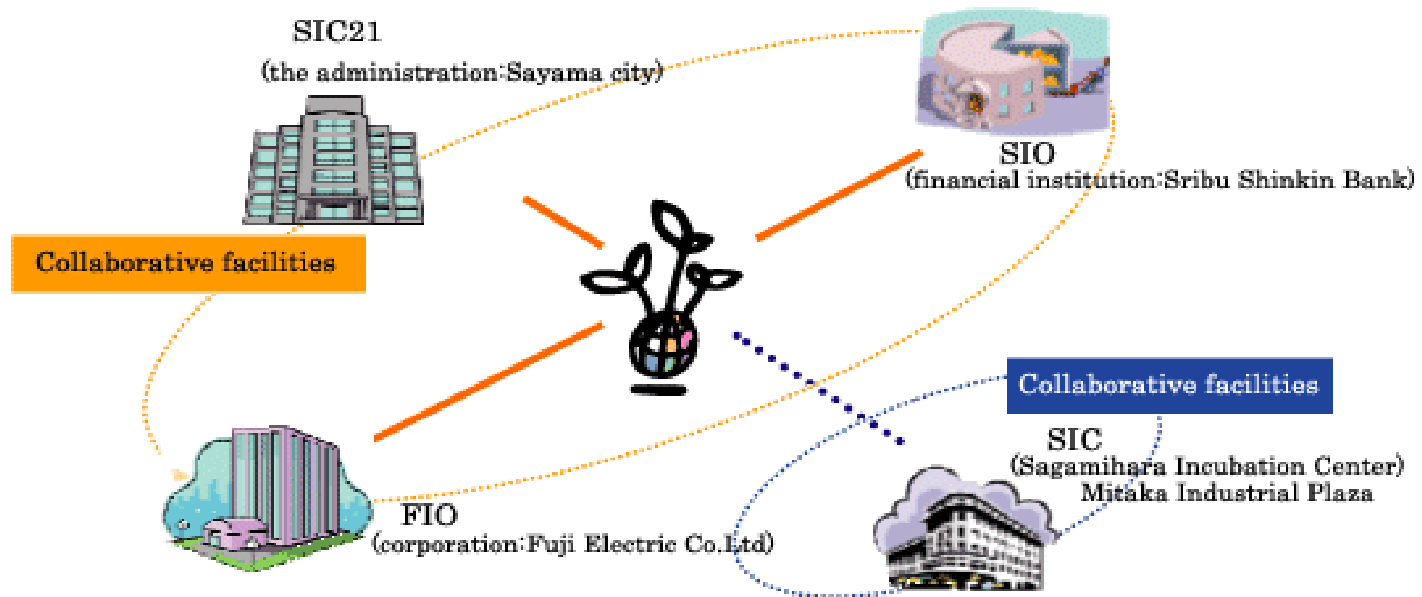
### Recruitment of 12 employees (by 10 companies)

Technological development (1), design (5), sales (1), maintenance (1), R&D (2), NC programmer (1), accounting (1)

# Collaborative incubation facilities

We make business alliances or collaborations with incubation facilities that corporations (FIO), the administration (SIC21), and financial institutions (SIO) prepare. We give advice about technological problems, cultivation of markets, and other managerial issues so that our tenants may operate their businesses swiftly.

In FIO, Tokyo Systems Factory in Fuji Electric Co., next to our office, plays the role of backyard function (testing, evaluation, and experiment) of manufacturing corporations. In SIO, Central General Accounting Office helps outsourcing of finance and personnel. Collaborating with the soft support provided by the TAMA Association, they give you comprehensive assistance to realize your idea.



# Mini-TAMA Meeting

**\*\*\*We provide you with opportunities for industry-academic-government collaboration in a number of regions.**

We hold a Mini-TAMA Meeting where local business managers, university researchers, university students, staff members of the Kanto Department of Economy, Trade and Industry and local governments can get together and exchange their opinions informally and frankly. We hope you will use these opportunities positively to create local networks. (Non-members of the TAMA Association are welcome to these meetings.)



## Mini-TAMA Seibu Meeting (West of Saitama Prefecture)

We hold seminars with the purpose of cross-industrial meeting, internship, and industry-academic-government collaboration. Our party begins at 20:00 where participants exchange their opinions frankly.

## **\*\*Mini-TAMA Seibu Meeting**

(West of Saitama prefecture)  
Meeting : the second Friday every month  
18:00 - 21:00  
Location : Sayama(even month) /  
Kawagoe(odd month) Boards of Trade

## Mini-TAMA Santama Meeting (Tama region of Tokyo)

We hold industry-academic collaboration case seminars to promote industry-academic collaboration. You can familiarize yourself with real experiences based on a firsthand perspective from university professors and business managers. Of course, we also have a party beginning at 20:00 where participants can exchange their opinions freely.

## **\*\*Mini-TAMA Santama Meeting**

(Tama region in Tokyo)  
Meeting : The third Friday  
of even months  
18:00 - 21:00  
Location : Seibu Shinkin  
Bank, Haijima Branch

## Mini-TAMA Sagami Meeting (provisional name)

We plan to establish Mini-TAMA branch office in the center of Sagami-hara-city as the main office of Kanagawa prefecture in the near future.

# **Success case in TAMA**

# ***ONLY 8workers-INC. tried R&D by Industry-university cooperation***

**1 . Yoneyama factory Inc. 株式会社 米山製作所 (Mizuho town, TOKYO)  
employee : 8 persons capital : ¥10mil.**

**The contents of operating :**

**making and reforming metal mold for printed board(1975 ~ )**

**waterjet-cutting(1990 ~ )**

**bending for light metal square bar (e.g. alminium)(1999 ~ )**

## ***2 . Industry-university cooperation***

**theme : development bending machine for light metal bar**

**partner : Tokyo Metropolitan Institute of Technology(Hino c.,TOKYO)**

**Department of Mechanical Systems Engineering**

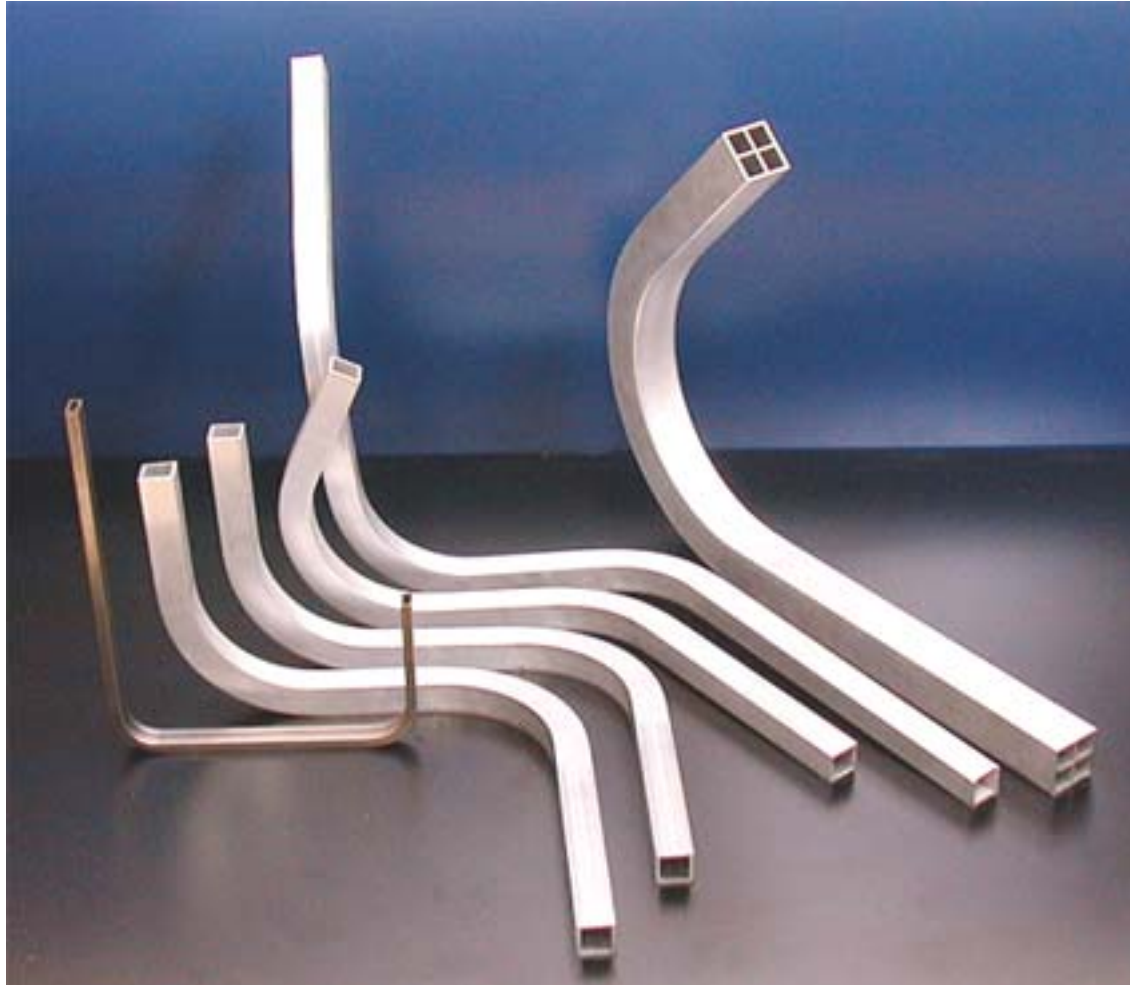
**Dr.Shuji SAKAKI**

**(Research areas: Mechanics of Materials, Metal forming,  
stability and working limit of material processing.)**



# development bending machine for light metal bar

right processing with Distortionless, crackless and wrinkless



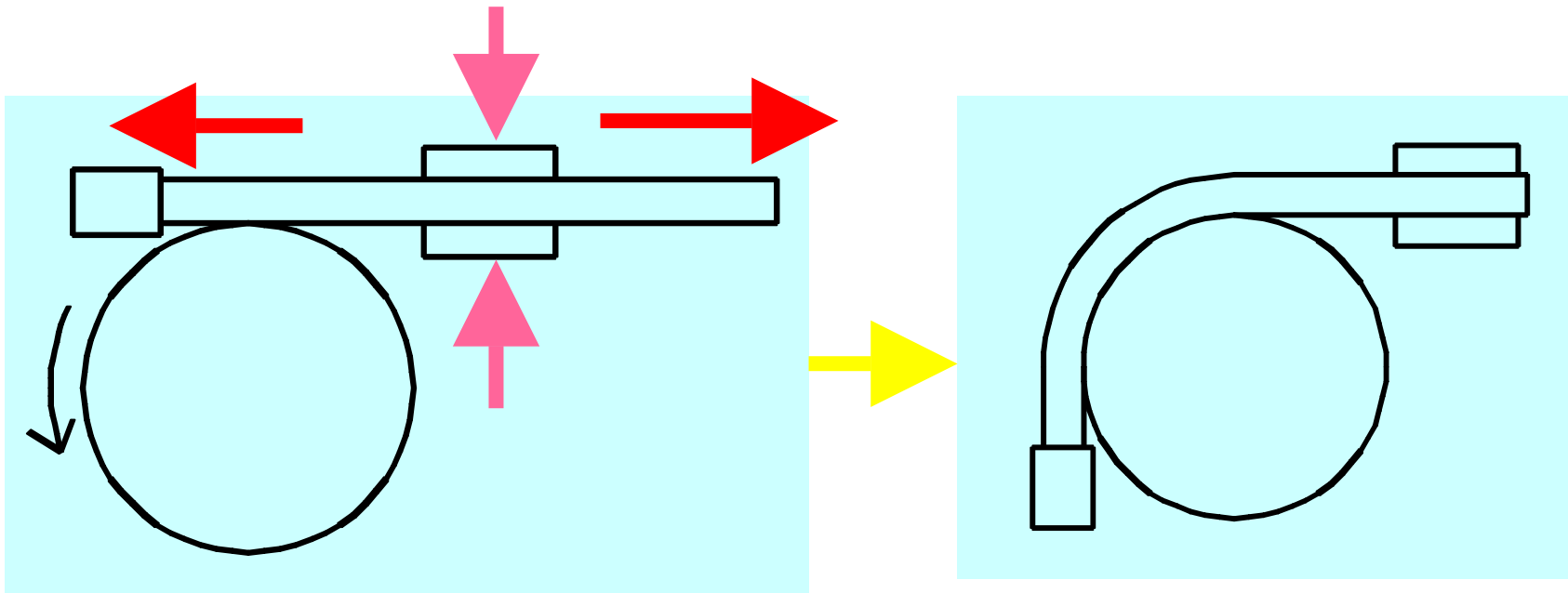


## development bending machine for light metal bar

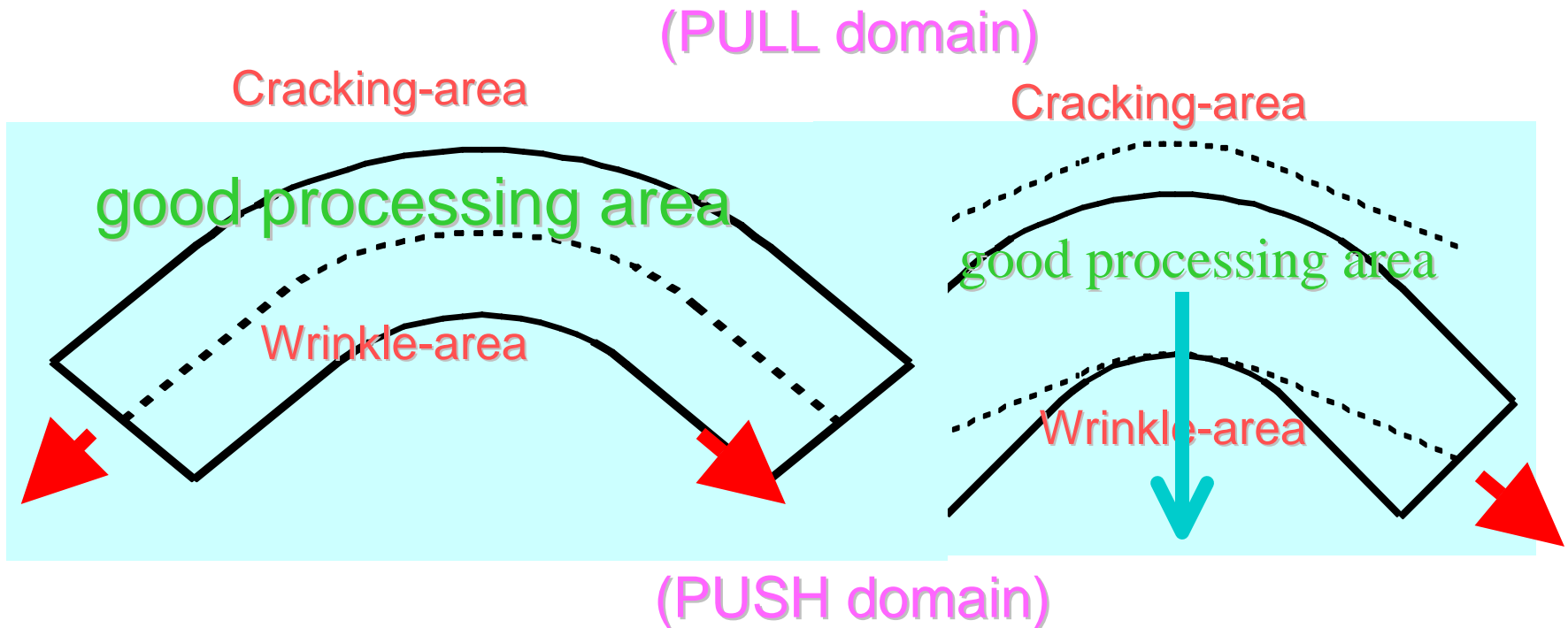
- right processing with Distortionless, crackless and wrinkleless
- Development of bending processing for Light metal (e.g. Aluminum) square bar in difficult conditions (thin meat, smallness R, asymmetry)

Mass production is possible.

### • 回転引き曲げ方式



# development bending machine for light metal bar



- dissolution of distortion(modification control) using core
- dissolution of Compression domain( wrinkle-control) extention
- control against overextention (crack-control) shaft controle

# ***Destination of TAMA (Outline of the next 5-year plan)***



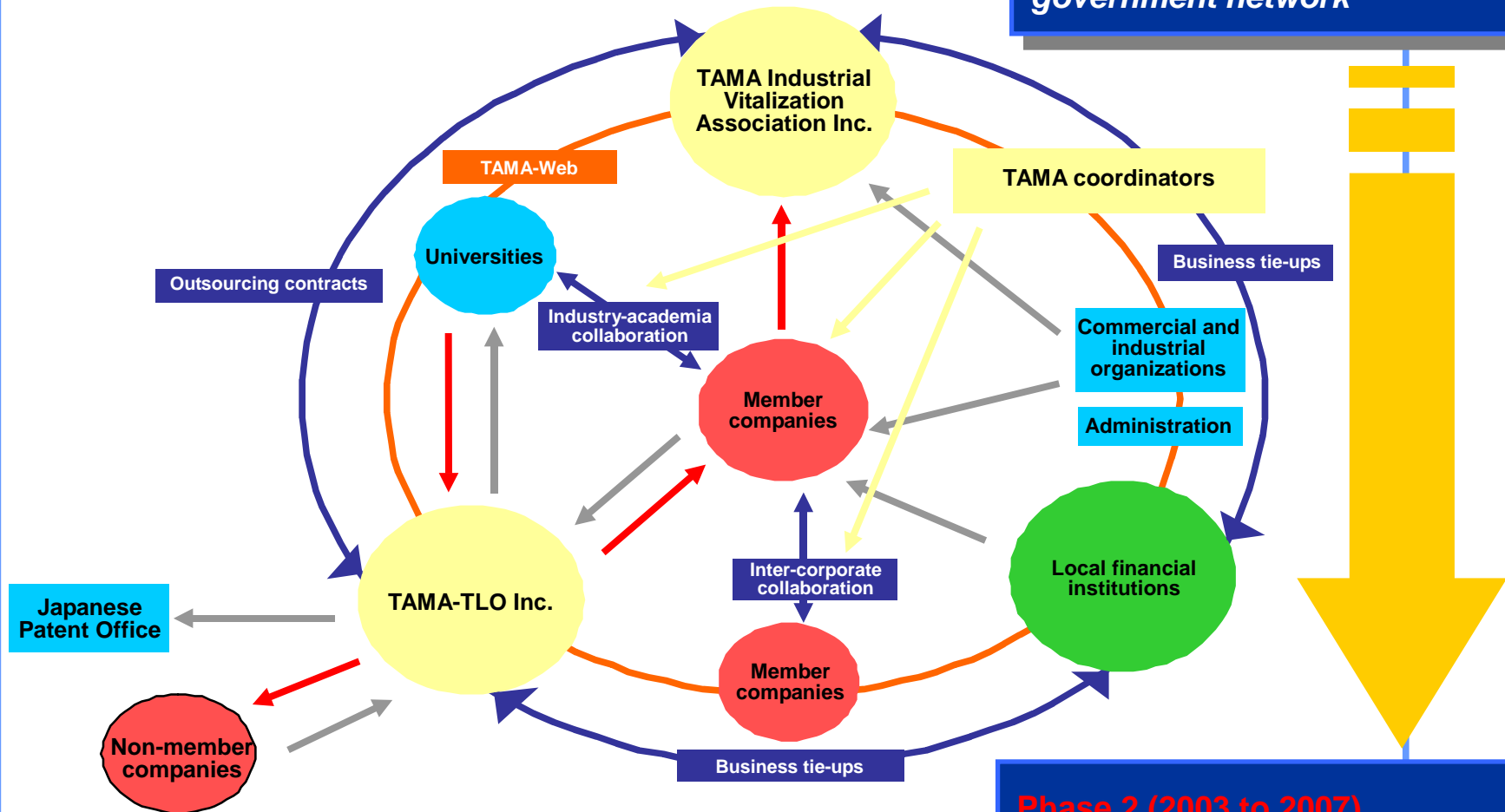
## **TAMA** **New Business Incubation** **Strategy Plan**

*(2003 to 2007: Phase 2 five-year plan )*

# TAMA network

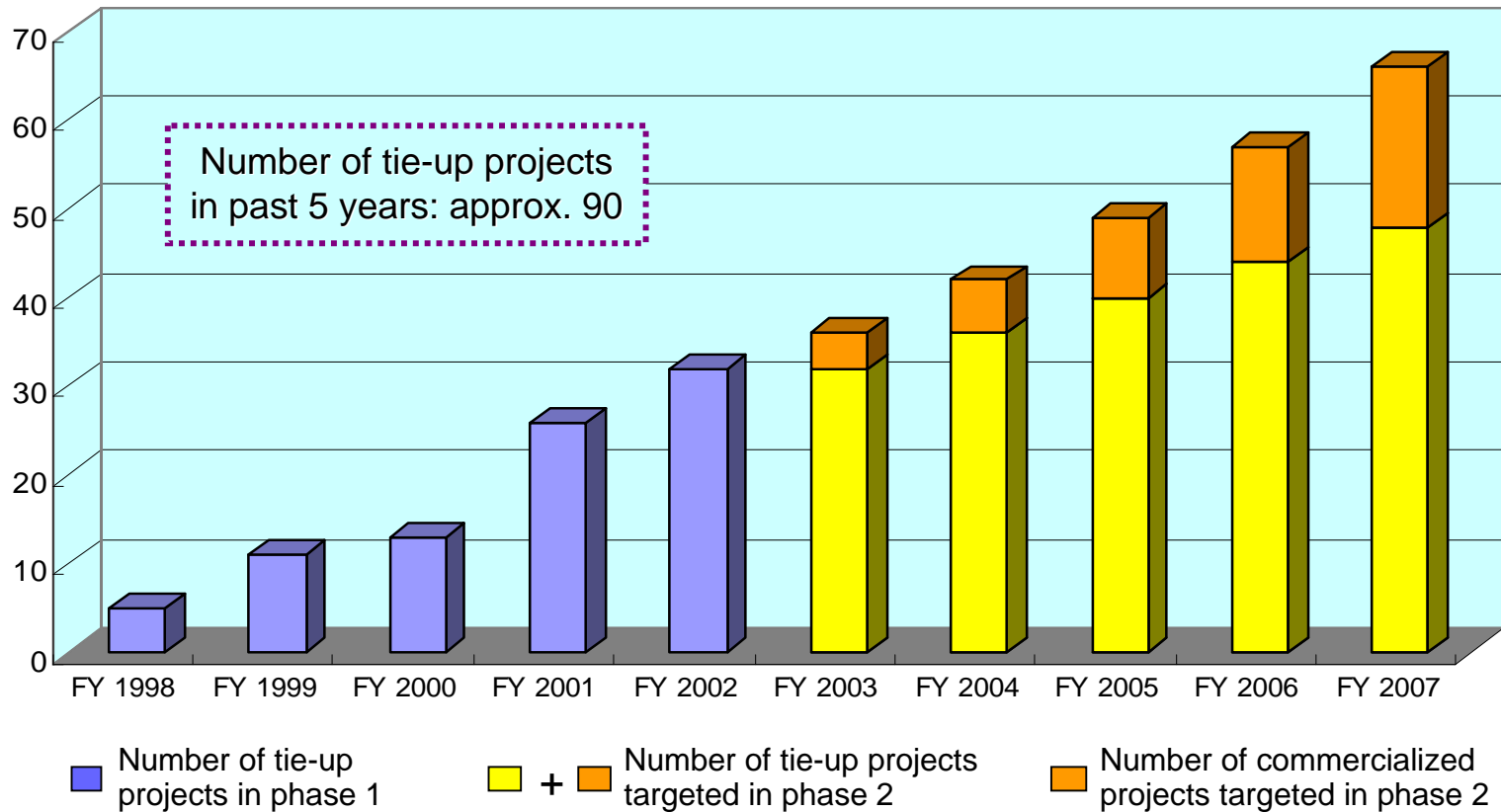
**Phase 1 (1998 to 2002)**

*Formation of industry-academia-government network*



## ◆ Numerical target ◆

Transitional goals for tie-up projects in achieving numerical target



## ◆ Numerical target ◆

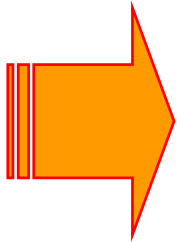
**Coordinating 250 tie-up projects, of which 50 projects to be commercialized at an early stage**

## ◆ Strategy planning scheme ◆

### ◆ Vision of Phase 2 five-year plan ◆

Utilizing a sophisticated network to develop  
“TAMA” into a world-class new business  
incubation center

Action plan



1. Strengthening member's ability in R&D

2. Supporting commercialization of new products/technologies

3. Supporting entrepreneurs and entry to new business fields

4. Strengthening tie-ups with local financial institutions

5. Strengthening of interregional collaboration

6. Expanding TAMA by increasing members and building  
a stable operation system

# TAMA's challenges *Production of "salable" goods*

Traditional product development → Based on the manufacturer's perspective

Future product development → Based on the end user's perspective

1. Customers decide product specifications. (**Unnecessary functions should not be added.**)
2. Review product specifications by taking development period into consideration ("**Not too early, but not too late.**")
3. The basic of product development is to focus on "**who will pay how much for what.**"

Supporting utilization of TLO's seeds

Scope of subsidization

Bridging loans

Concept

Preliminary market research

R&D

Development of prototype

Mass production

Commercialization of product

Advertisement

Sales

Product planning support

Business matching with female entrepreneurs, NPOs, farmers

- Promotion of human resource mobility (Human resources)
- Encouragement of the use of testing and examination equipment (Goods resources)
- Assistance in obtaining government funds (Capital resources)

Funding support

Foundation of TAMA fund

Cultivation of market support

Foundation of TAMA version of sales representative system