

### 3 Exploratory Software Project

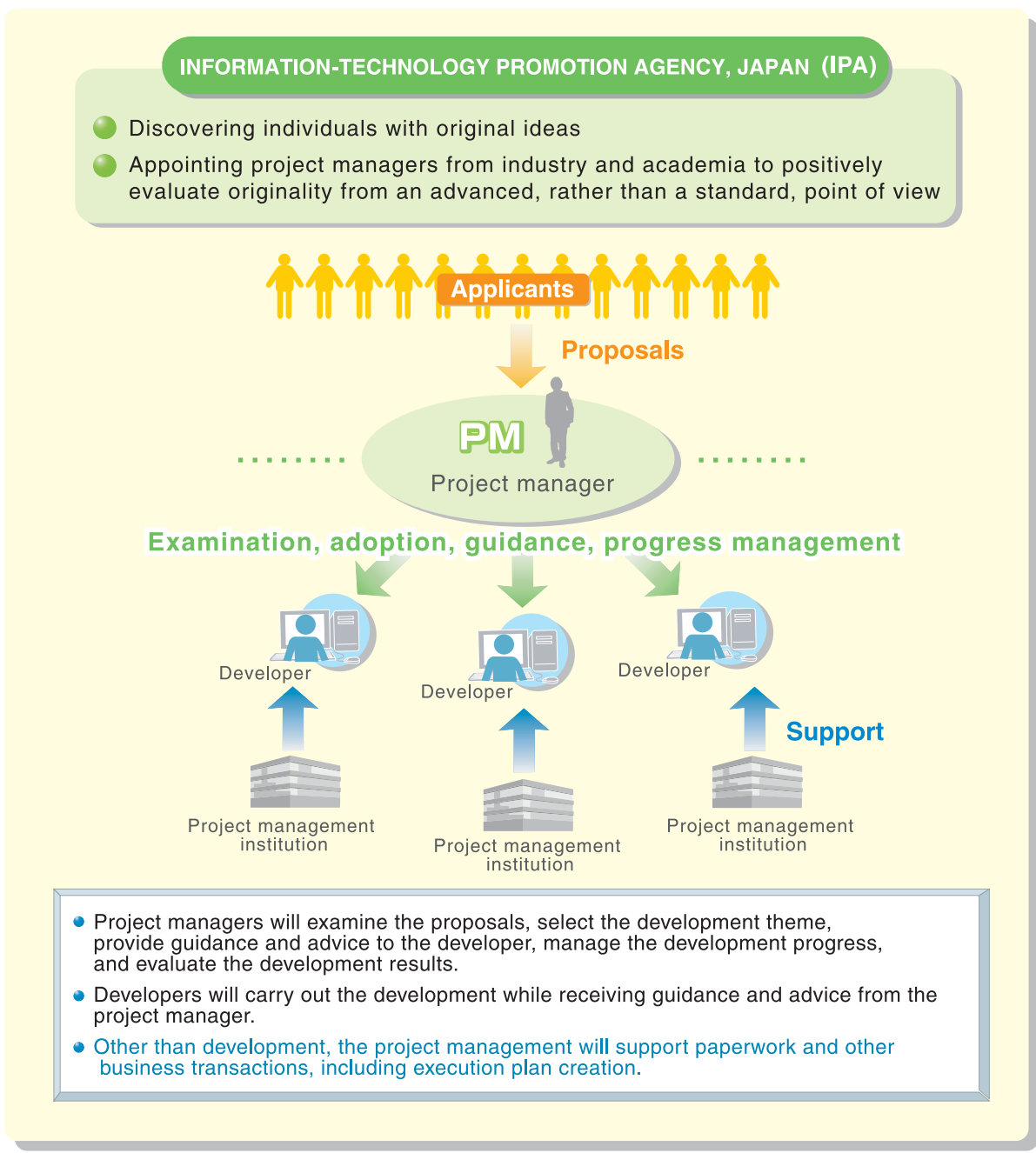
IPA endeavors to discover individuals or groups of several individuals, who are creative and competent enough to lead us into next-generation IT market through its Exploratory Software Project. IPA provides an environment in which such "Super Creators" can concentrate on development, and also supports the development of software that can open up new markets.

Since fiscal 2002, IPA has also been operating an "Exploratory Youth" program for young developers under 28 in an effort to further expand the scope of its exploratory software project.

Software Development

IT Systems Security

IT Human Resources Development



Development Example 1

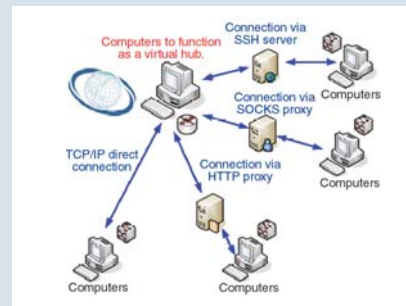
**Theme name: Implementation of Ethernet software and development of a tunneling system**

EXPLORATORY Youth Project

Developer: Daiyuu Nobori, an Information Science student at the Third Cluster of Colleges of Tsukuba University  
Project Manager: Ikuo Takeuchi, Professor of Information Engineering, University of Electro-Communications

This software virtually implements communication between Ethernet network devices and other network devices. A virtual network environment that enables flexible communication between computers and networks can be easily implemented without considering barriers including NAT, firewalls, and communication protocols, which are normally associated with existing networks. This system works without any problems concerning stability or performance. In addition to being highly evaluated by the project manager, there were 1 million downloads in three months after making it available at the website.

Related URL: <http://www.softether.com/>



Development Example 2

**Theme name: Multimedia Cooking Support System at Home**

Developer: Reiko Hamada, specially assigned assistant for graduate course of Information Science and Engineering, Tokyo University Graduate School

This project developed software that assists in cooking and implements the automatic generation of multimedia contents to help people cook. This software implements the synchronous presentation of images and texts, manual correction of correspondence, display of optimum procedures and support for multiple recipes. A user interface with a high completion percentage was also achieved. Among other functions, presenting the optimum procedures for multiple recipes is particularly useful because it creates new value that cannot be found with the other contents. This software was highly evaluated by the project manager, thanks to its great usefulness.



Development Example 3

**Theme name: Expanding leak prevention systems in broadcasting type delivery**

Developer: Hideyuki Watanabe, Managing Director of IBS Corp.  
Project Manager: Nobukuni Kino, Director of Nippon Angels Investment Co., Ltd

This project developed a new encryption method suitable for encrypting contents to be delivered to many people, and can be applied to existing multicast pay delivery system. Other known encryption methods have the problem that it is easy to find a new key by collecting a number of keys. Last year's theme was to solve this problem. This year, we have improved on the development results and added new features in order to improve internal performance, ease of use, security, and availability. The newly developed results were highly evaluated by the project manager for theory, programming productivity, completion level of the engine section and future applicability.

