

National Regulatory Bodies and International Networks: Lessons Learned in Korea

RP Networks Round Table

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Current Networks in Korea

1. **RAdiation Safety Information System (RASIS)**
2. **Korea Information System on Occupational Exposure (KISOE)**
3. **Real-Time Radiation Source Tracking System**
4. **U-Radiation Expert Support System(U-REST)**
5. **WAste Comprehensive Information Database system(WACID)**

RASIS

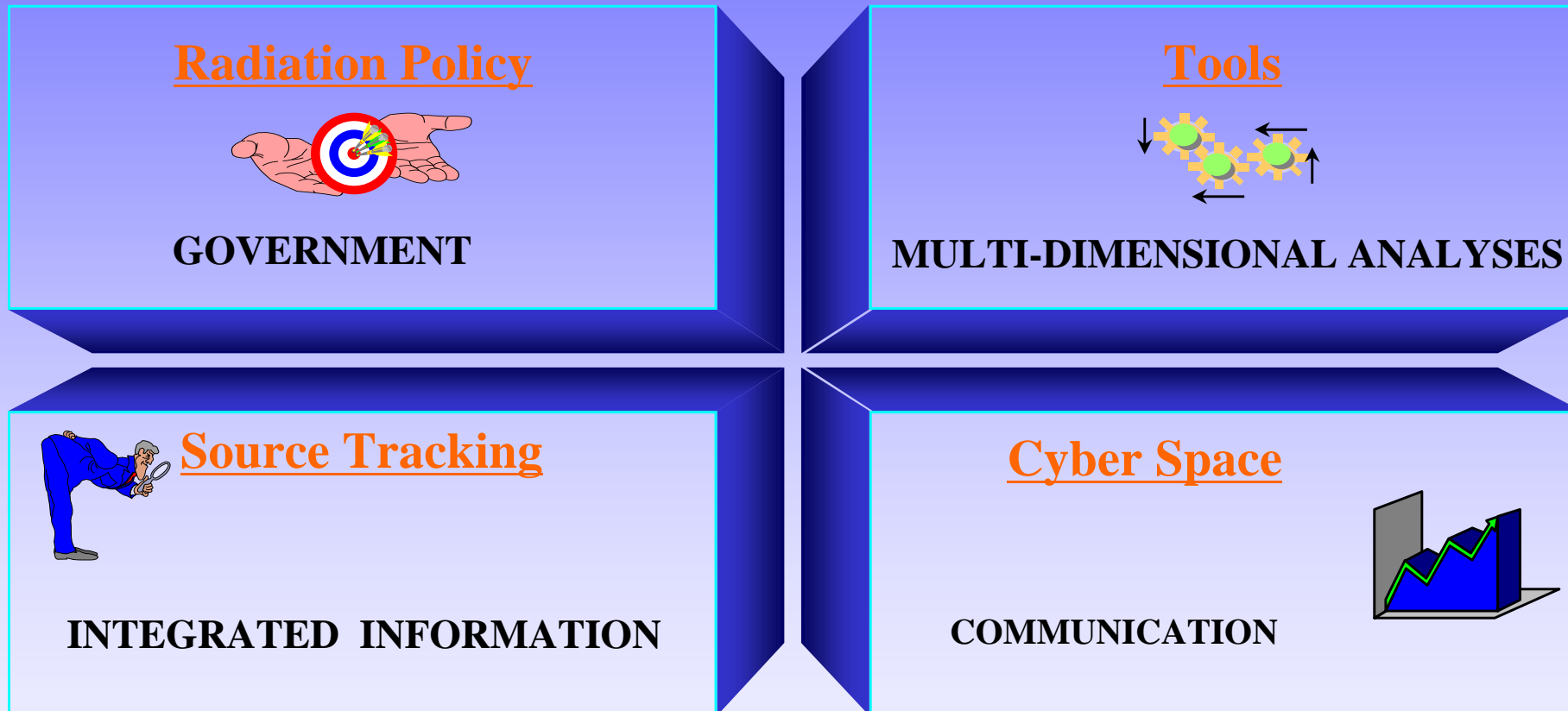
- **integrated network system forming a powerful network of authorization and management → currently merging into one system with nuclear safety and knowledge basis system**
- **Effective control of radiation sources**
- **On-line sharing with Stakeholders**
- **On-line tracks from birth to grave**

RASIS

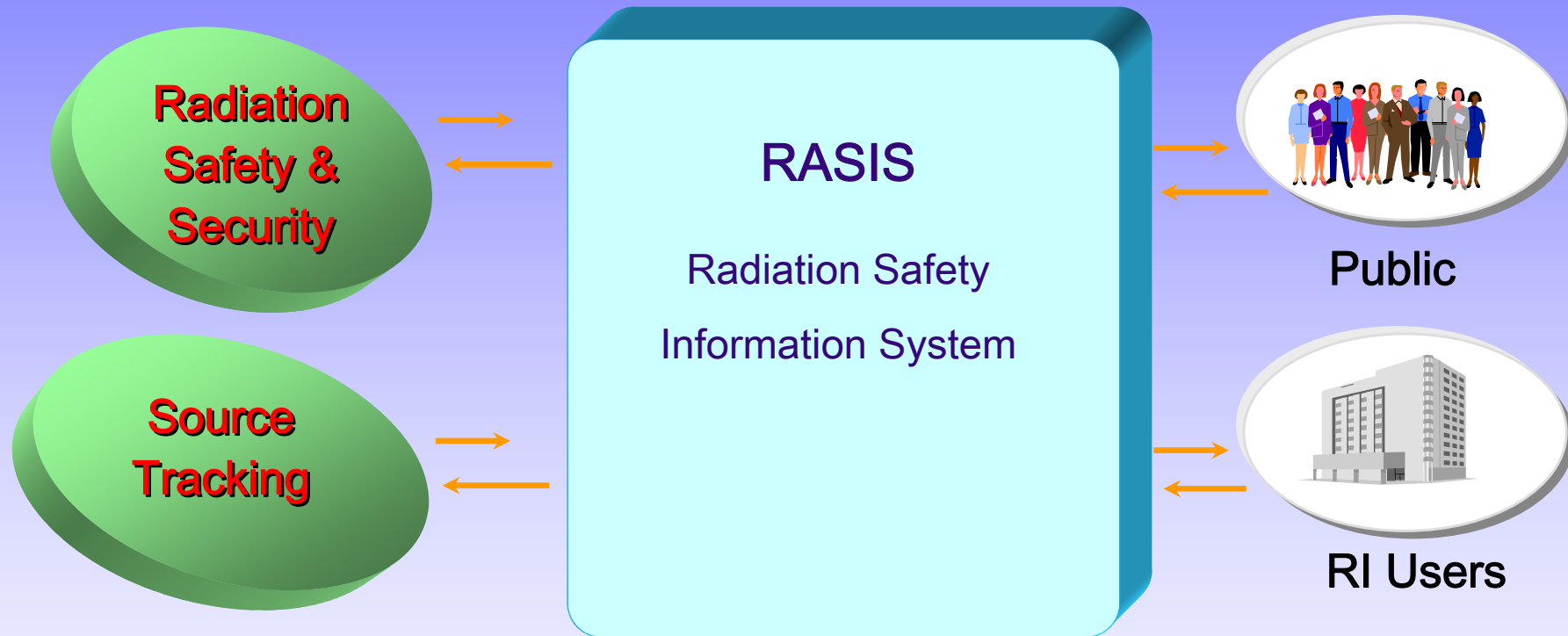
- consists of the following four sub-system
- the **Information System** on Regulatory Activities for Radioisotope that is responsible for the review and inspection of licensing
- the **User** Safety Management System that supports safety management activities
- the **Cyber** Information System on Radiation Safety that provides comprehensive information on radiation safety
- the **Life Cycle** Management System for Radioisotopes and Radiation Generators.

• RASIS

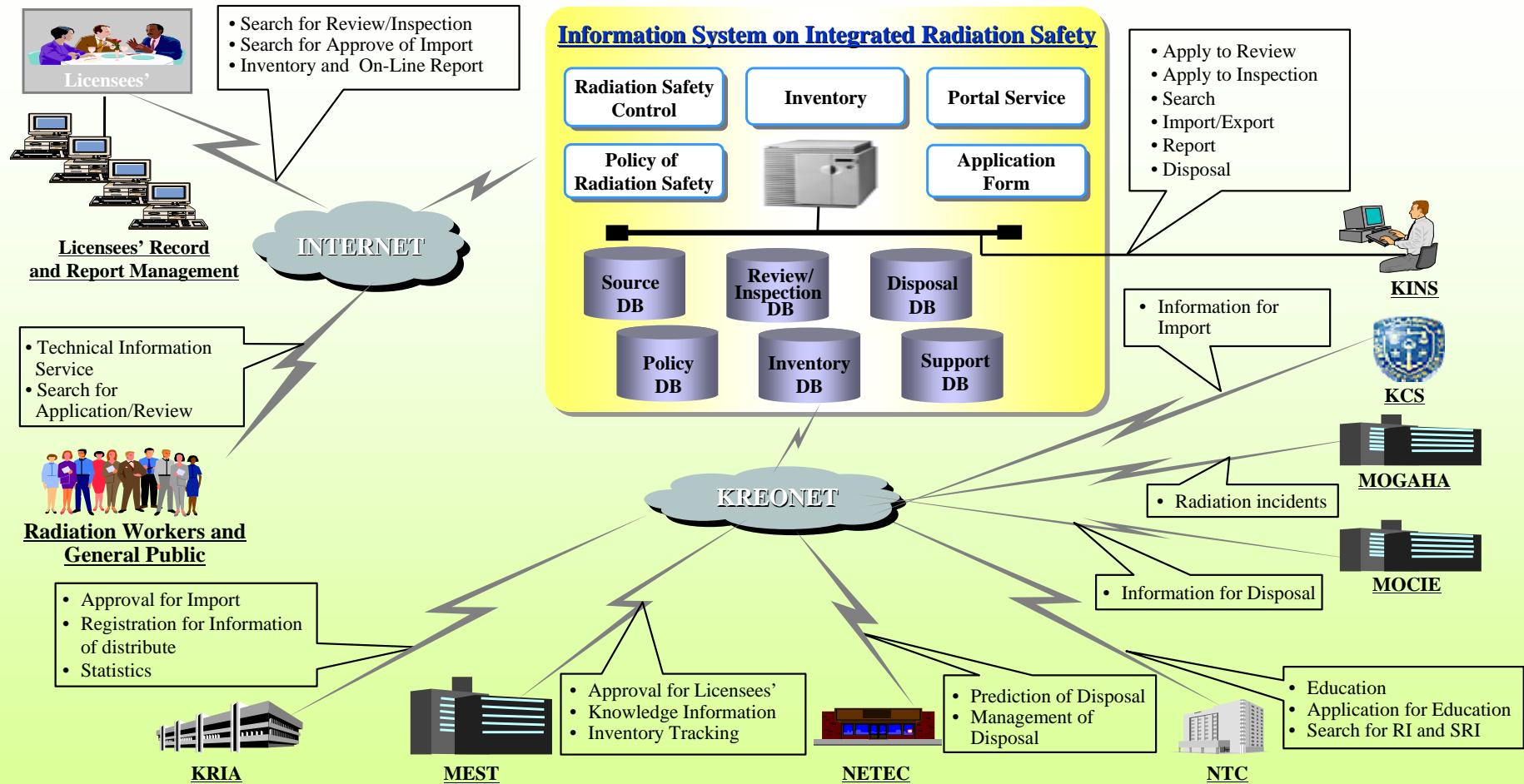
Inventory tracking and communication



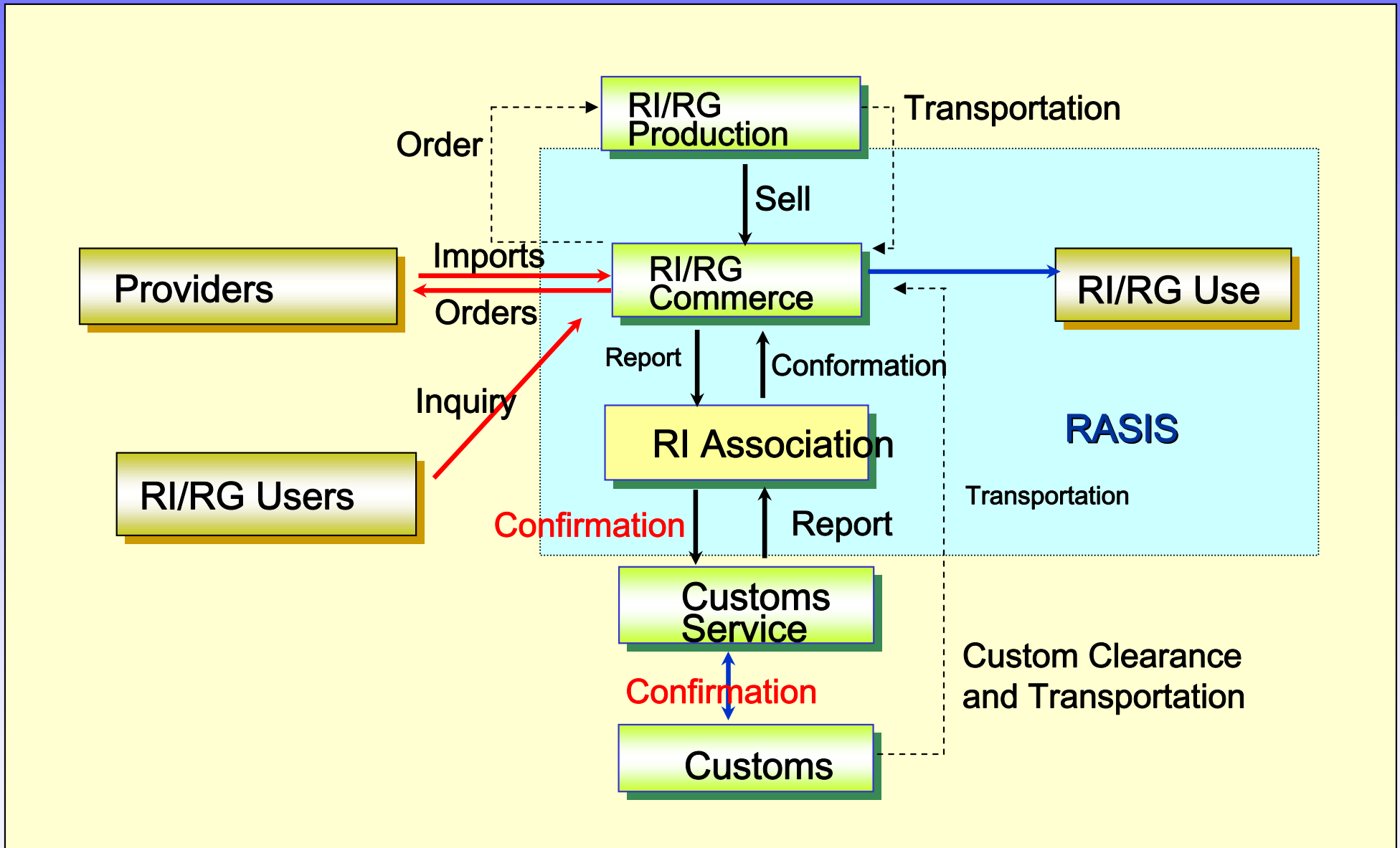
RASIS



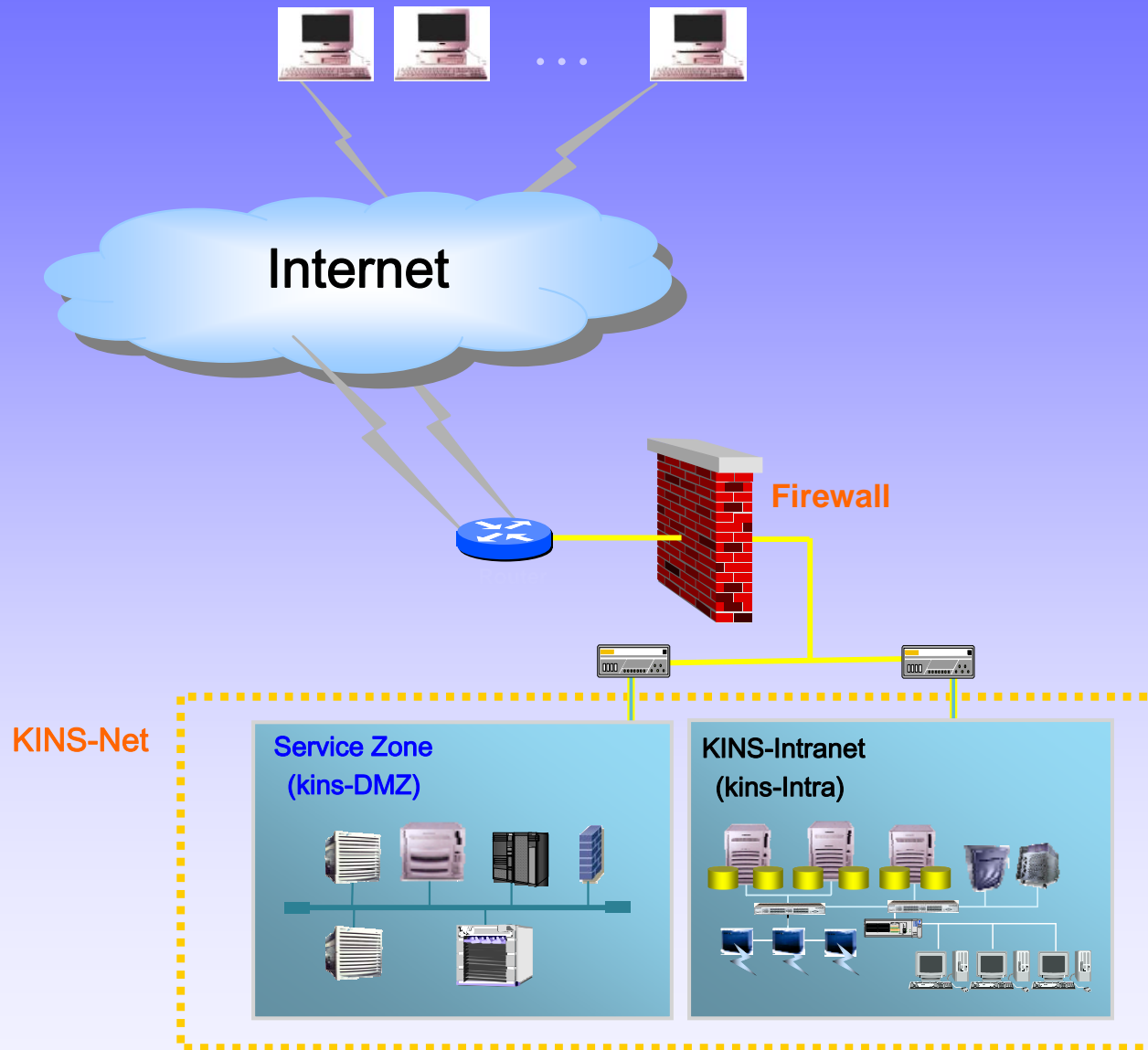
• Layout of Network



RI Commerce Control



KINS-Network



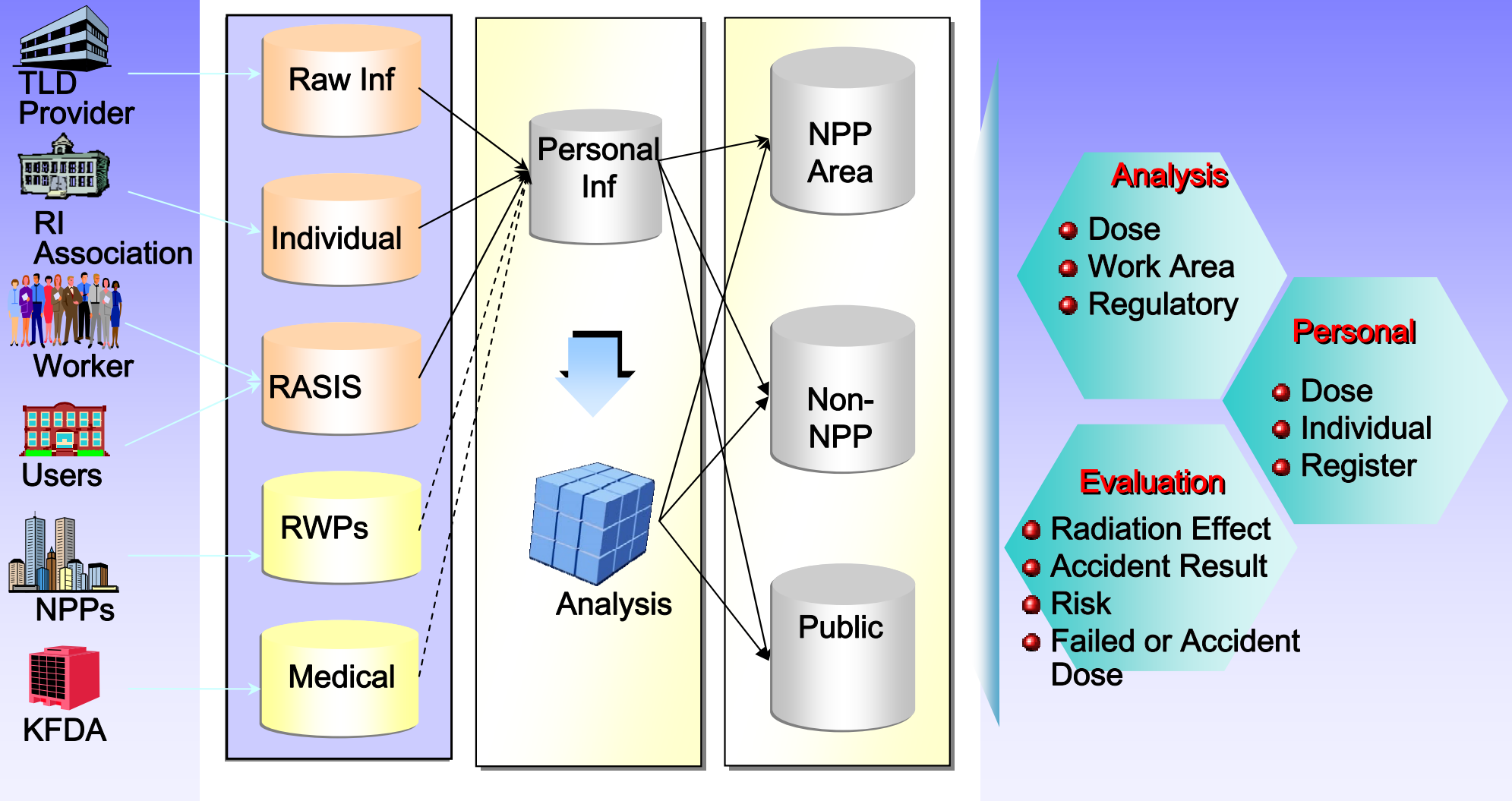
KISOE

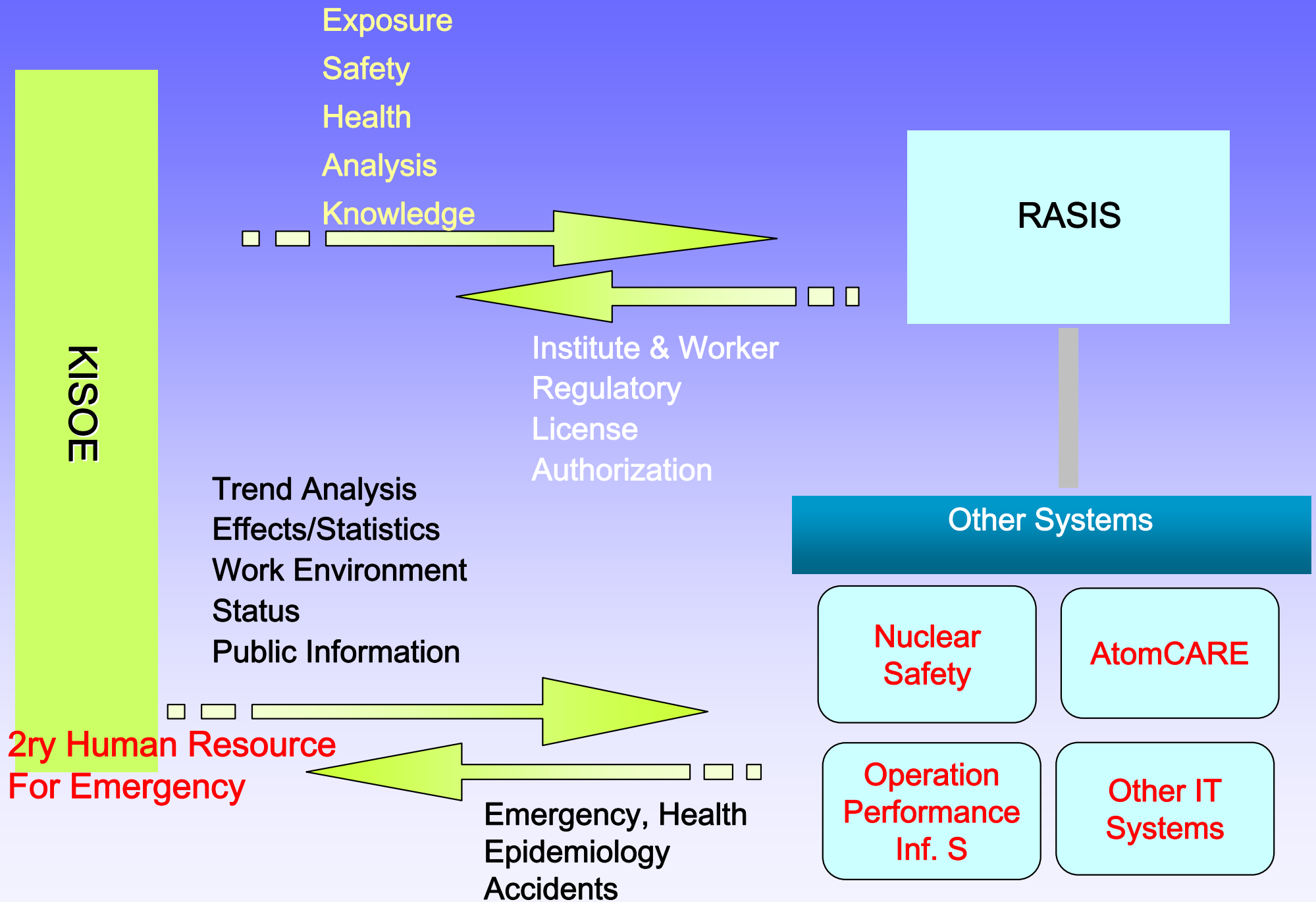
- **analyzes the status of radiation workers : age, service years, dose range, trend by sector (general industry, medical, research, non-destructive, sales, public, education, nuclear power and others)**
- **provides the information to the radiation workers as well as premises and decision makers.**

KISOE

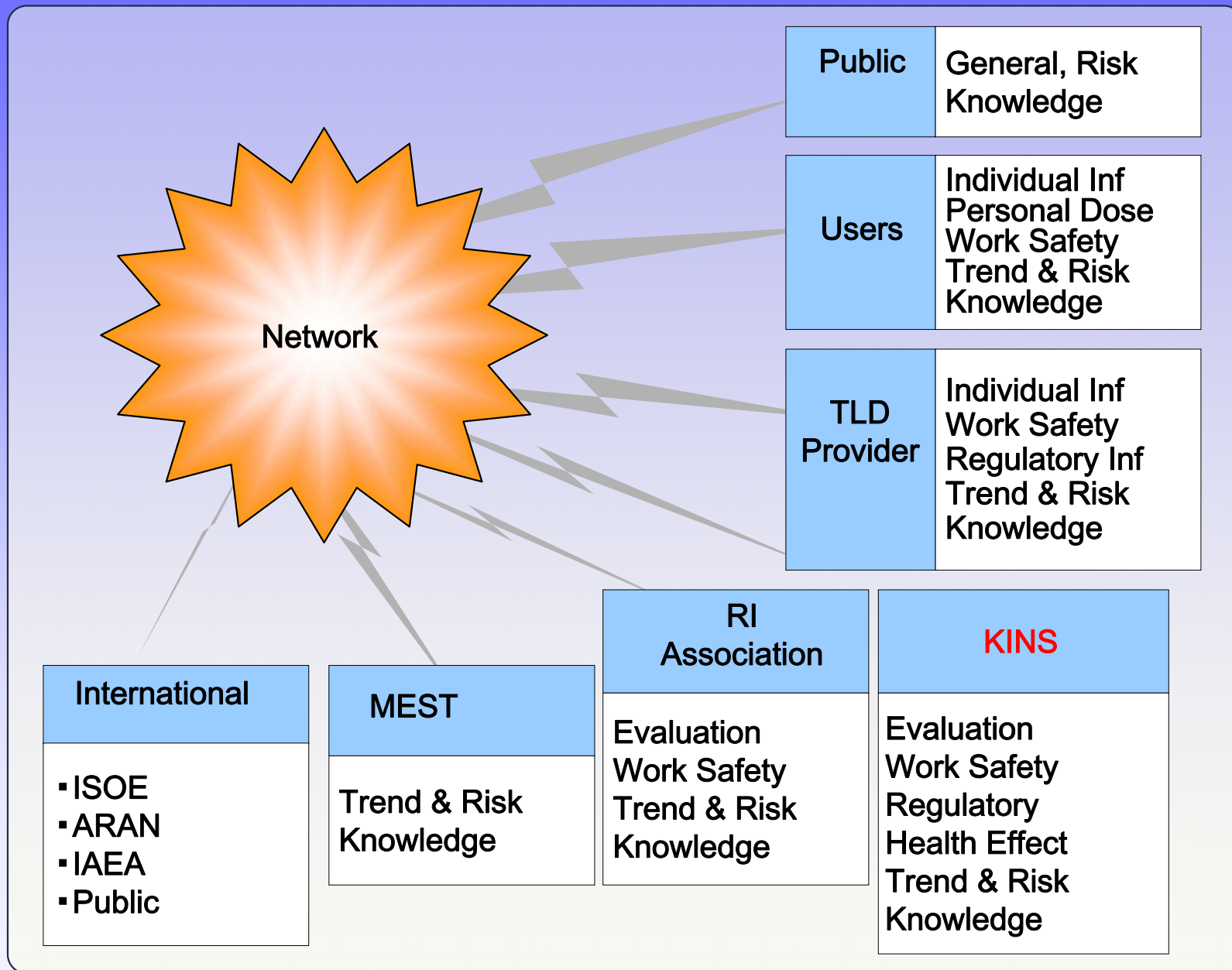
- **Integrated system of Web-based radiation exposure (kisoie.kins.re.kr)**
- **safety and protection of radiation workers through the national management system.**
- **Management of exposures, analysis of the work environment, and inspection of dosimeter services**
- **includes the program, a Web version program of ISOE (Information System on Occupational Exposure)**
- **Currently ALARA Asian Network (ARAN) in operational: initial stage project (IAEA)**

Korea Information System on Occupational Exposure

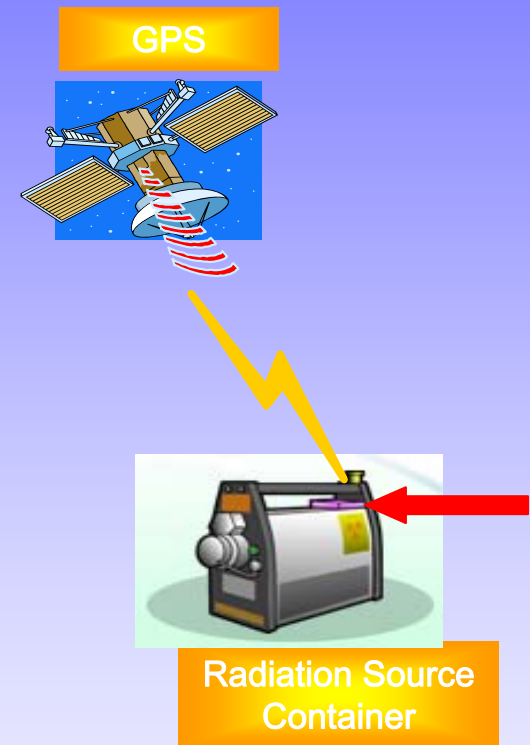




KISOE

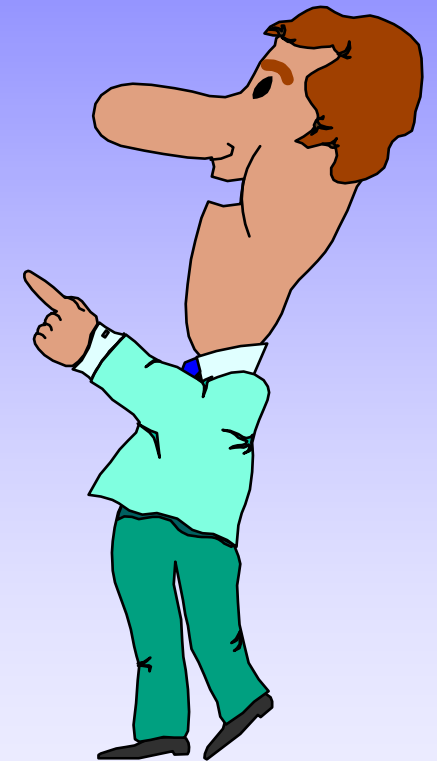


Real-Time Radiation Source Tracking System

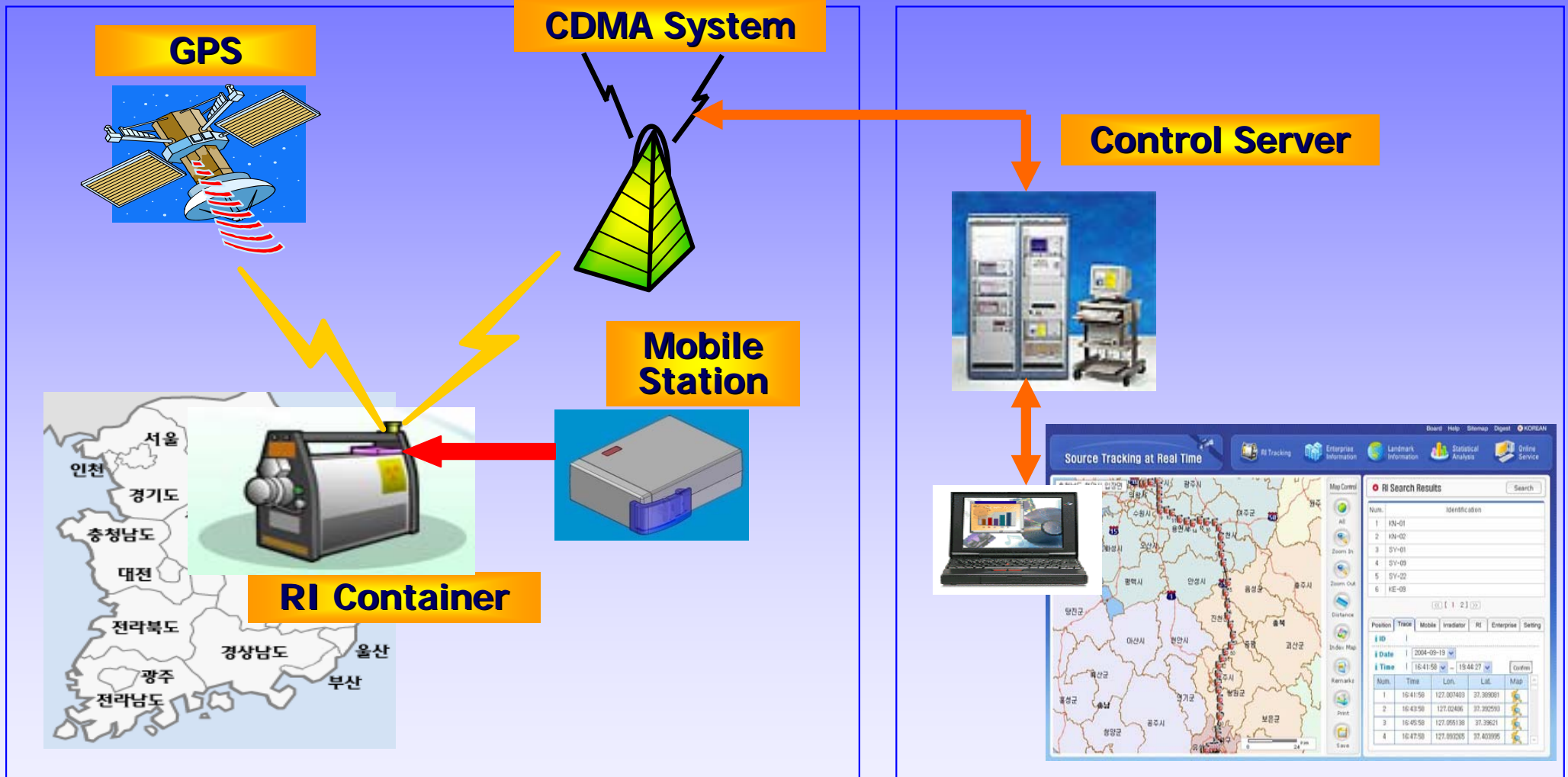


Objectives

- **Strengthening Safety and Security**
- **Prevention of Lost/Stolen Radiation Sources**
- **Effective Control and Management of Radiation Accident or Disaster**



System



Source Tracking System

Control Center

Technical Aspect

- **Requirements for GPS terminal;
Strong durability, water-proof, fire-proof etc.**
- **Communication between terminal and control center through Global Positioning System**
- **Code Division Multiple Access (CDMA)
Cell Tracking System**
- **Web-based Management of system, based on GIS system -> <http://carelbs.kins.re.kr>**

U-REST

- **a terror like accident occurs in a remote city is controlled shortly within initial stage by the real time communication with relate local organizations and alert voluntary radiation experts around the site**

WACID

- **information of radioactive waste management by KINS since 2002**
- **information from domestic nuclear installations through the internet into the concerted DB system**
- **The DB system has been employed conceptual system model, unified data format and modular functional configuration**

Summary

- **According to the experience in the Republic of Korea, the real time communication mechanism produce much valuable outcomes**
- **brings together the tasks of regulation authorities, related institutions and organizations using radioactive materials**
- **regulation practices are balanced with on-line network stakeholders**

Summary

- **Real time communication : regulator, vendor, user, public, relate organizations**
- **Convenience, effectiveness and competition in safety culture, improved service, and make accident zero in reality**
- **Enhance public confidence**
- **Extended international activities and promotional projects**

Endless Demands
but it is Real !

Thank you for
your attention

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