

# SEMPER

## Secure Electronic Marketplace for Europe



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## Project overview

# 1. Project Overview

## Project Objectives

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**Establish an open and generic security architecture for the global marketplace**

- ◆ **Define a model of the marketplace**
- ◆ **Specify an architecture and associated services**
- ◆ **Evaluate the architecture and the services**
  - ◆ Develop a prototype
  - ◆ Run realistic trials
  - ◆ Evaluate security and consumer response
- ◆ **Disseminate the results**
  - ◆ Publish architecture and specifications
  - ◆ Contribute to standardisation efforts
- ◆ **Exploit project results**

## 1. Project Overview

# Consortium

## Service provision

- Otto Versand
- Eurocom
- Fogra
- Maris

## Banking

- Europay
- Commerzbank

## Telecom operators

- France Télécom
- KPN Research
- Intracom

## Social sciences

- Freiburg Univ.

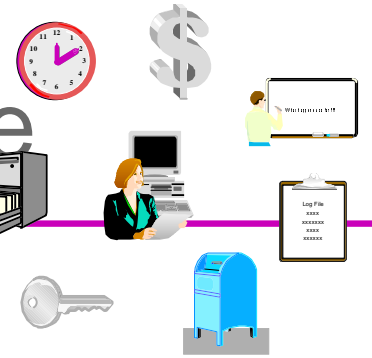
## Security engineering

- Cryptomathic
- CWI
- Digicash
- GMD
- IBM
- r<sup>3</sup>
- SINTEF
- Dortmund Univ.
- Hildesheim Univ.
- Saarbrücken Univ.



# Secure Electronic Commerce

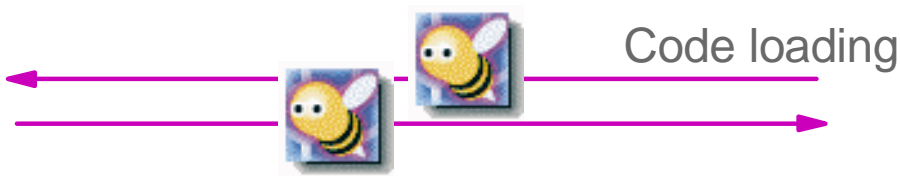
Third Parties



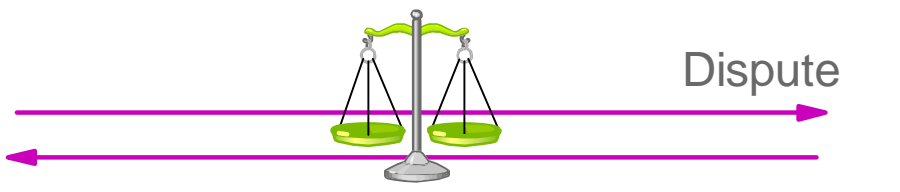
Buyer



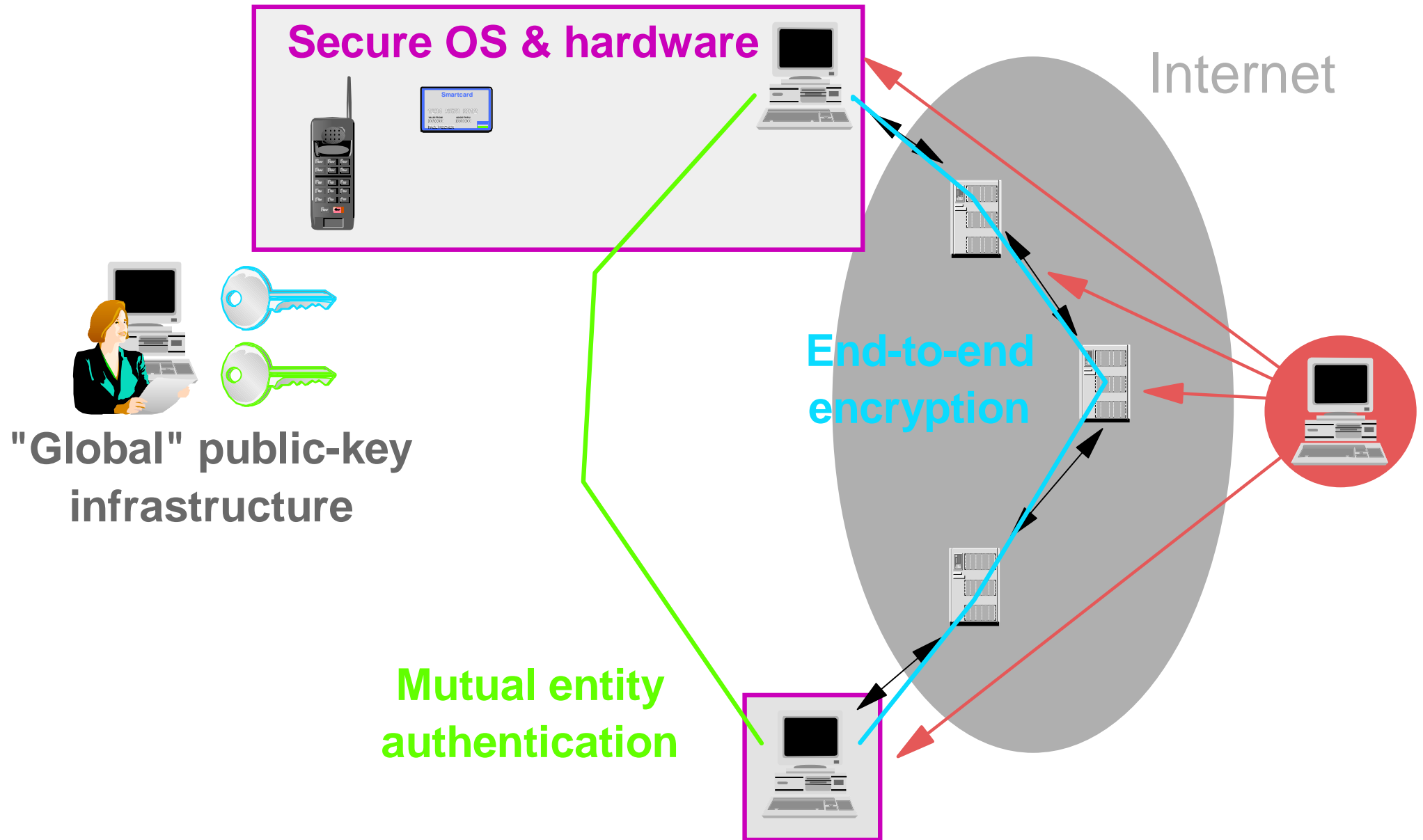
Merchant



or



# Internet Security: Goal



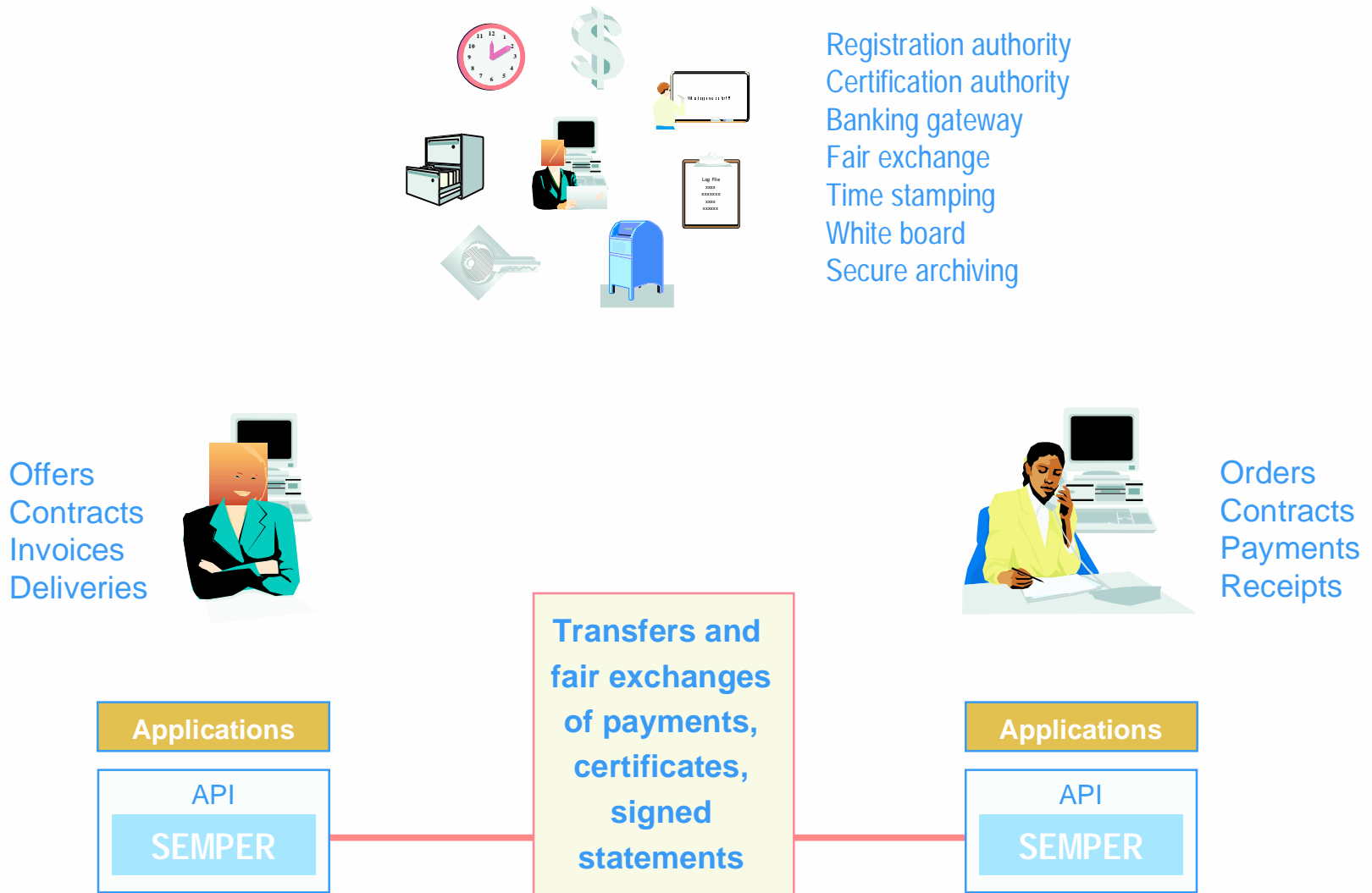
# Secure Electronic Commerce

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- **More than Secure Communication**
  - Multi-party problems: payments, notarized contract signing, auctioning, copy protection, ...
  - Multi-party security: limited trust in others
  - Processes: Systems must be securely linked, e.g., contract with payment with delivery
- **More than electronic payments**
- **More than just integrity**
  - Privacy and anonymity; availability; accountability
- **More than just a technical question**
  - A lot of open legal questions ...

# 2. Achievements

## Model



## 2. Achievements

# Service Architecture

## Commerce Layer

Generic and standard business processes

## Transfers & fair exchanges

Documents, fair contract signing, certified mail, etc.

Payments

Certificates

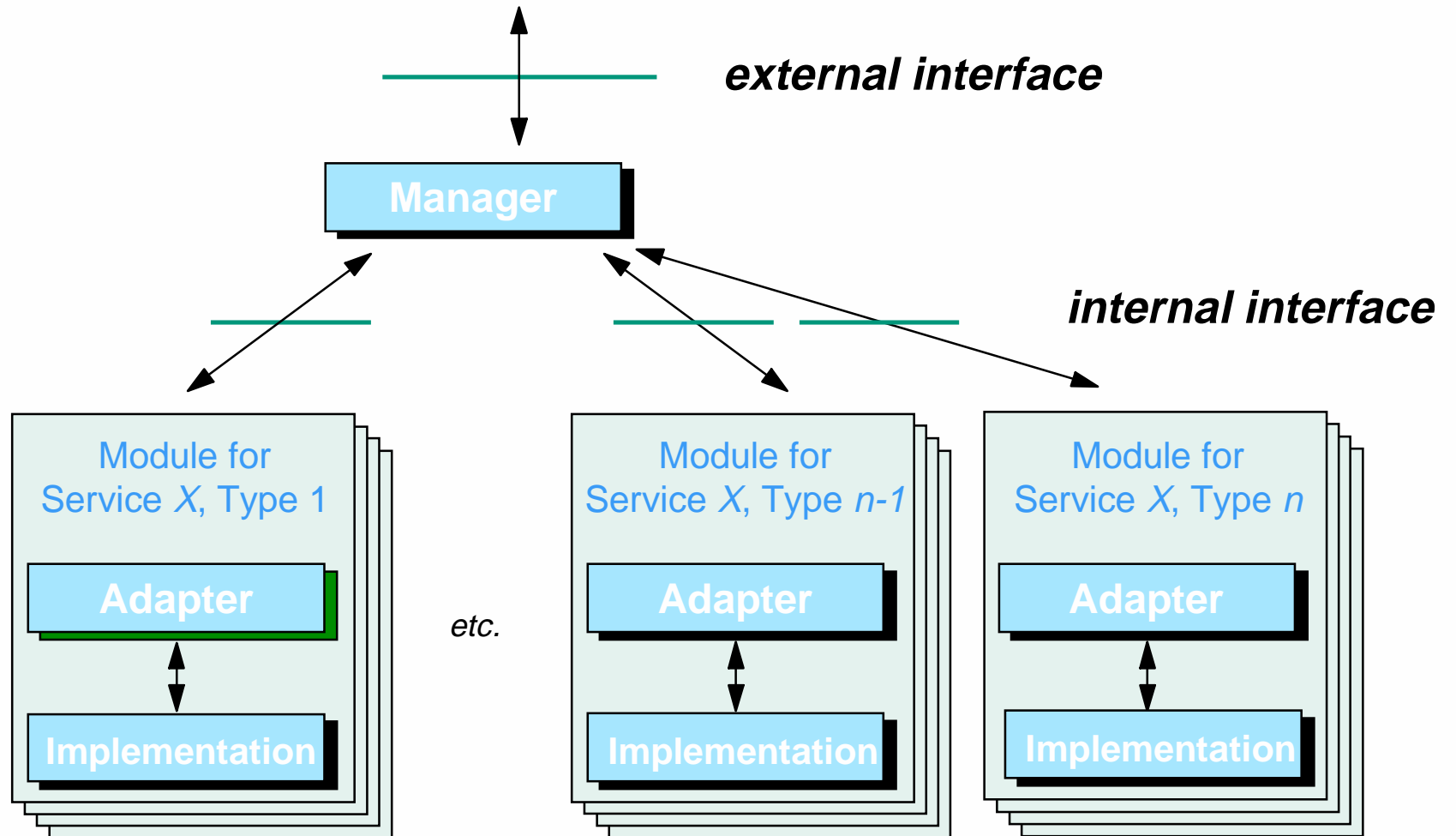
Statements

## Supporting services

Communication, crypto engine, trusted user I/O (TINGUIN),  
archive, preferences, access control

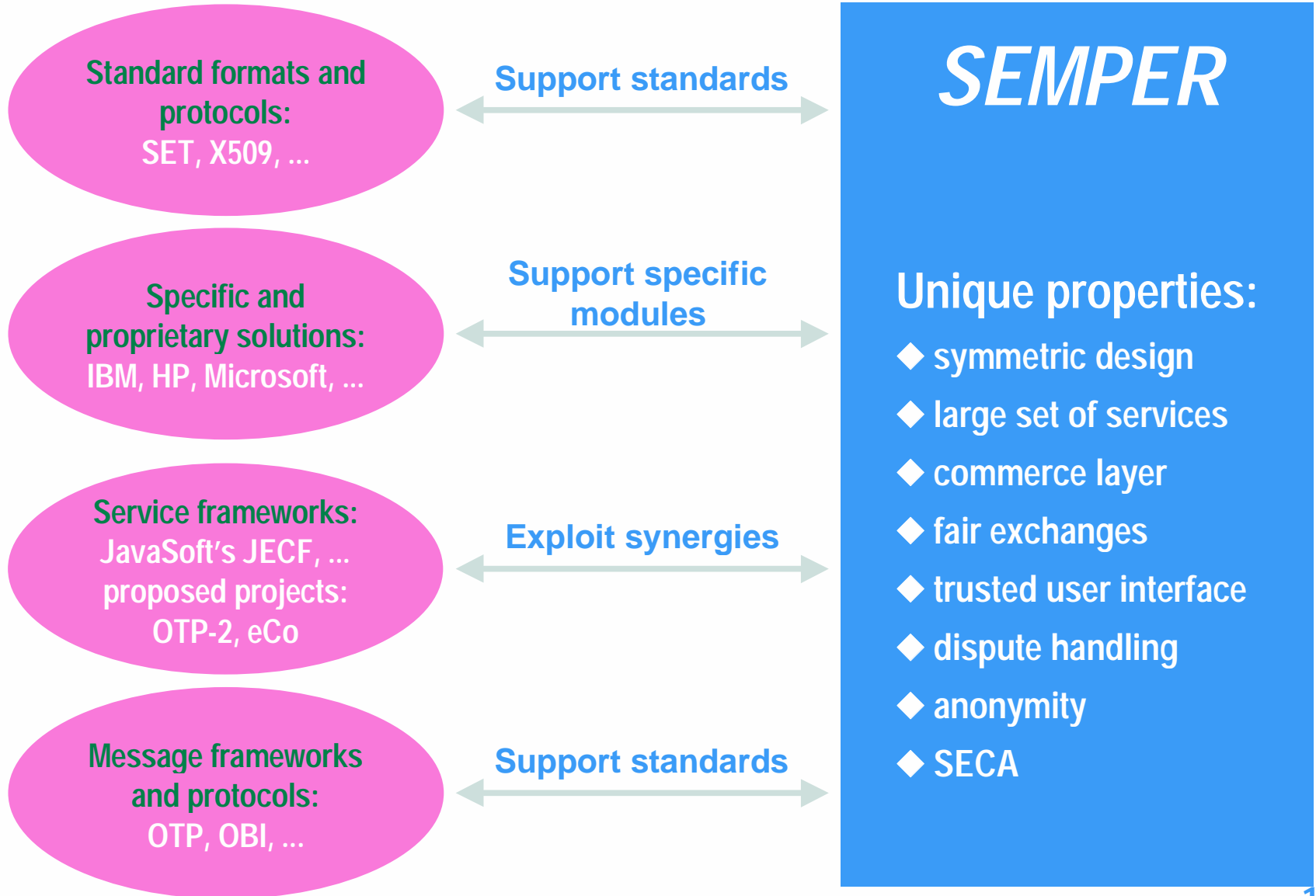
# Service Blocks

## 2. Achievements



# Positioning of SEMPER

## 3. Future Plans



# Internet Bargainer

## 3. Future Plans



# Conclusions

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## *SEMPER:*

### Blue-print of the Global Secure Marketplace

- ◆ Foundations of secure electronic commerce
- ◆ Strategic contributions towards an agreed e.c. framework
- ◆ A global, open solution with a European implementation