

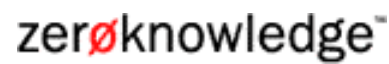


AGENTS & PRIVACY

Presentation to 24th FIPA Congress Lausanne February 13 2002

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PISA CONSORTIUM

PISA Consortium



WP 1 & 3

WP1 - AGENT DEVELOPMENT

- *Platform Development*
- *Adherence to standards*
- *Demonstrator / Shareware production*

FINSA
consulting



WP 3 - SECURITY

- *Security Architecture / PKI*
- *Algorithm / Protocol Selection & Development*



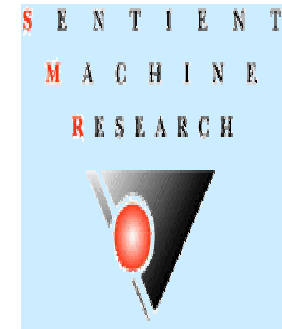
WP 4 & 5

WP4 - DATA MINING

- *Privacy risk exposure of data mining*
- *Mining / Matching component development*

WP5 - NETWORK

- *Network - Freedom Infrastructure*
- *Scalability Simulation*
- *Trusted User Interfaces*



zeroknowledge™

WP 6

WP6 - DISSEMINATION



COLLEGE BESCHERMING PERSOONSgegevens

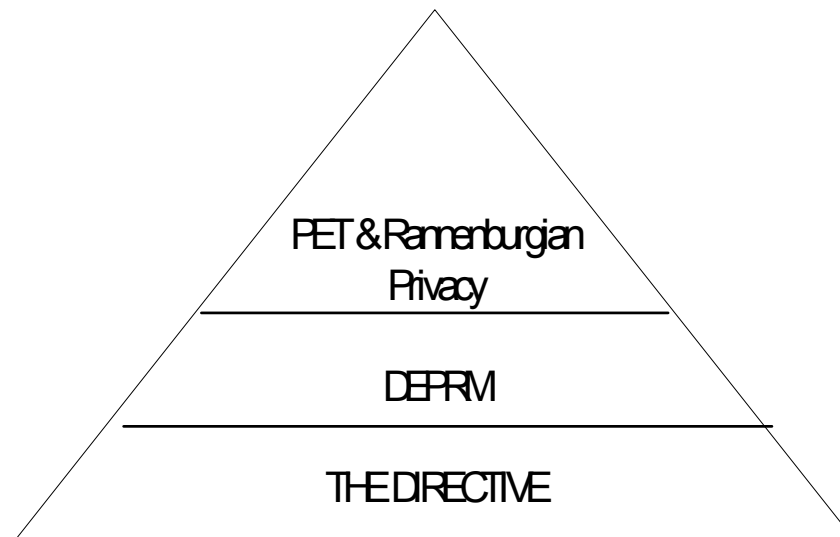
- ***Friends Of PISA outreach***
- ***Congress Montreal May 28-31 2002***
- ***Press Relations***
- ***Journal Publication***

Legal basis of Privacy

- ***1950 - European Convention on Human Rights***
- ***1980 OECD***
- ***1981 Council Of Europe***
- ***1995 & 1997 - European Commission - need for unrestricted internal market and a uniformly high level of data protection - includes tri modal definition of accountability***
- ***USA - No Federal Privacy Legislation***

CBP & PISA

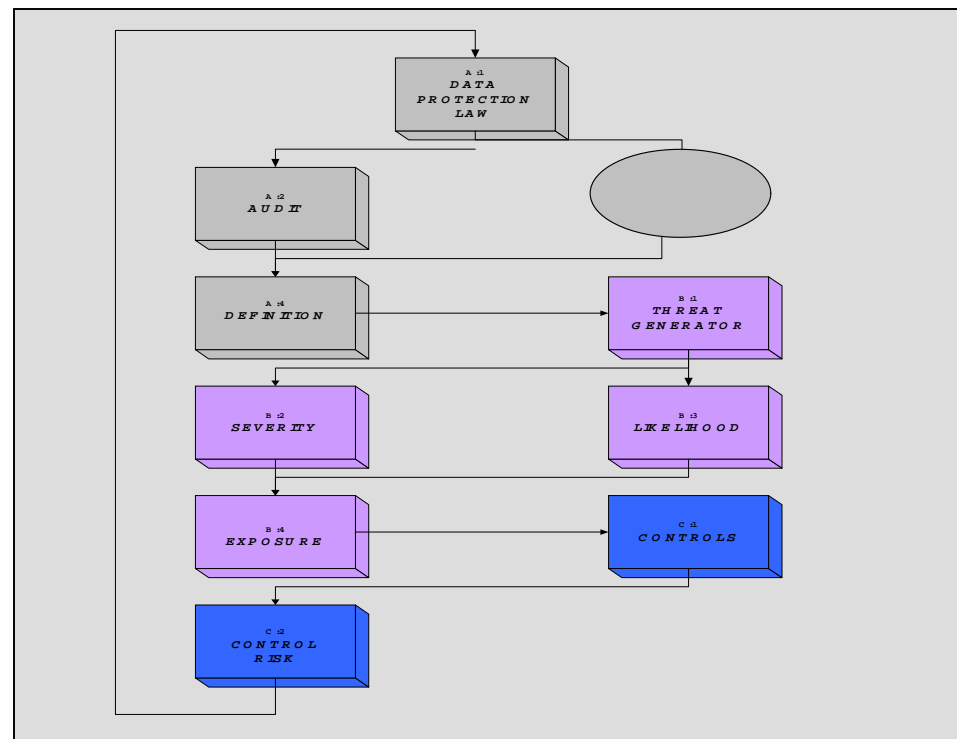
- ***How to deal with data protection in a complex development environment?***
- ***Link the law to its technical consequences***



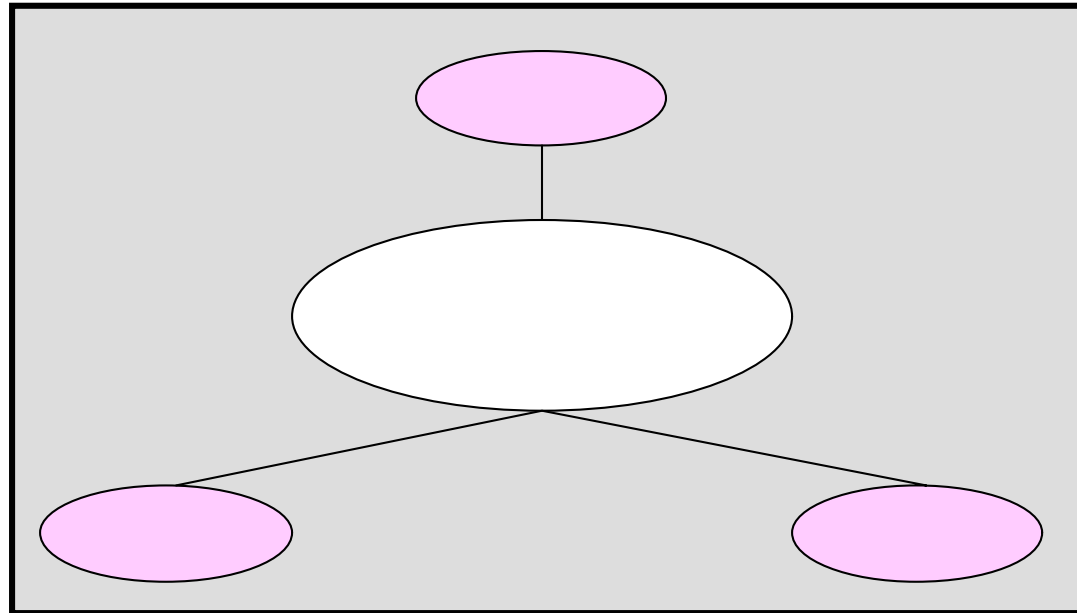
DEPRM Architecture

This presentation focuses on the gray boxes

DEPRM is a notional framework linking knowledge engineering to an iterative process of creative problem solving.



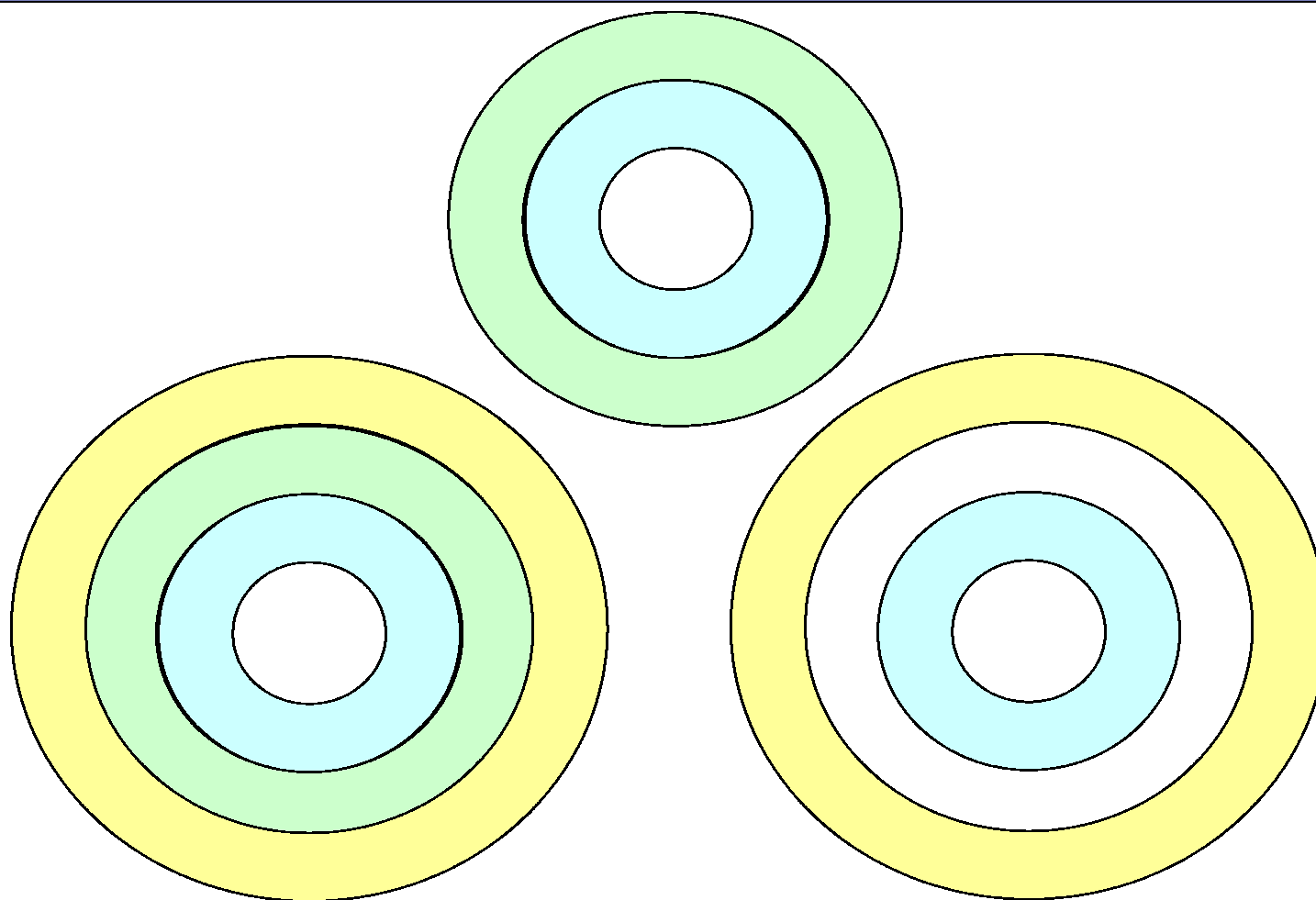
WP 2 - PRIVACY in PISA



- *We impregnate design with data protection law*
- *In PISA the law requires security, logic and interface considerations*

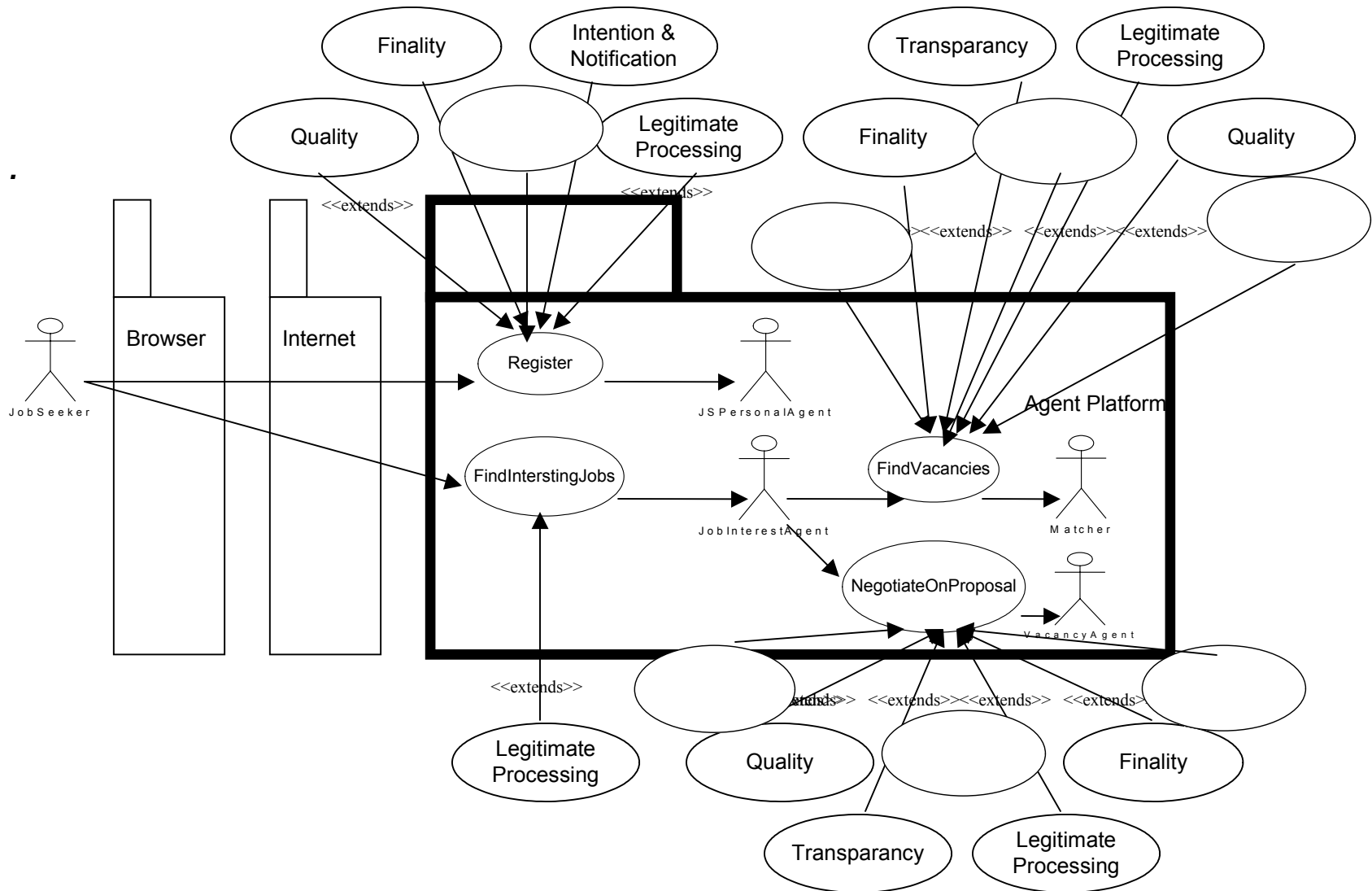
WP 2 - 9/46/EC TRACEABILITY

Articles require combinations of these three domains



Labour Case Scenario

We drill down this simplification with specialised use cases developed for each of the general ones



Example Ontological Concepts

Knowledge engineering distils meta data from the law. Such constructs can be organised into ontological objects for our purposes. PISA will present FIPA with a complete privacy ontology.

General Preferences Object

Consent : boolean
PrivacyLevel : string
Age : long

DP Inform Object

retentionPeriod : long
dataSensitivity : string
timeStamp
signature
nationality : string
generalProcessingrules : string
securityAgreement : string

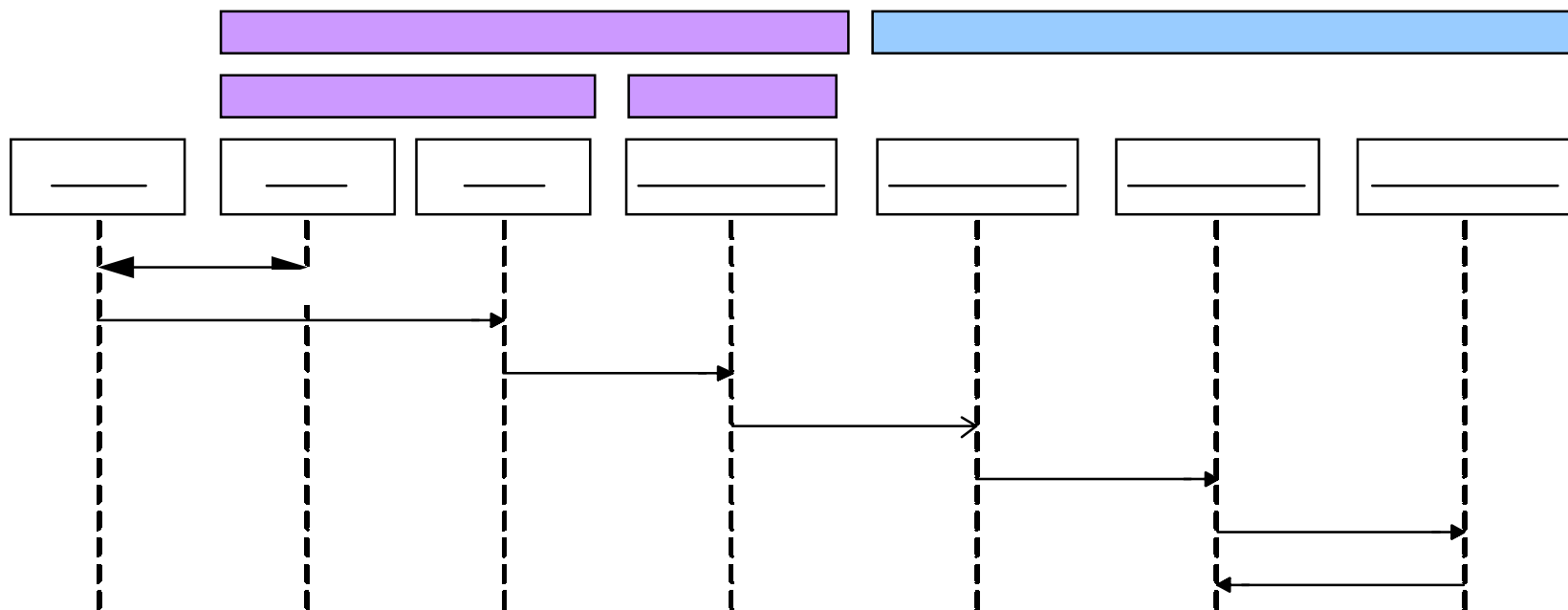
DP Query Object

processorId : string
purposeSpecification : string
processorLocation : string
objectiontoDisclosure : boolean
readableonlyStorage : boolean
Version : long
RighttoObject : boolean

Possible Scenario

Assuming an untrustworthy platform -
privacy requirements should be driven
thru all three tiers reusing available tools

P3P <EXTENSION> & APPEL development potential equates to necessary but insufficient technical and assurance solutions to data protection. In PISA business objects must construct ACLs encapsulating privacy constructs for the MAS



Privacy Tools

*We can achieve a great deal with the
FIPA ACL Message Structure*

- ***Performatives - standard communicative acts***
- ***Privacy Ontology - resultant from PISA Knowledge Engineering***
- ***Content - implicated as PII is non homogeneous***
- ***Data Protection Protocol***
- ***Privacy Rules - open source?***

Liability

“...the burden of losses consequent upon use of defective articles is borne by those who are in a position to either control the danger or make an equitable distribution of the losses when they do occur.”

Henningen v. Bloomfield Motors Inc. case the New Jersey Supreme Court in 1960

• Risks may lead to liability and information systems. Endangering our privacy may in the future trigger on the agent developer product liability claims for software (...deliberately) written to jeopardize the privacy of the citizen.

Summary

- *In Europe, Privacy is a Human Right*
- *Lets work together!*
- *PISA Manual*
- *Friends Of PISA*