Interacting with ETPs

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NESSI Standardisation Committee

FIA Standardisation Session
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RTD Projects of ETP NESSI

**Strategic**
- Commit contributions
- 4CAAST
- Aniketos
- EzWeb
- Master
- NEXOF-RA
- Reservoir
- Serenoa
- SLA@SOI
- SOA4ALL
- Tefis
- VISION

**Compliant**
- Comply to SRA
- Compas
- TAS³
- Primelife
- BonFIRE
- Fast
- MyMobileWeb
Inventory of standards

- Started with survey in projects
- Categorized thematically
- Linked together with other assets
  - Especially architecture patterns
- available on
  - [http://www.nexof-ra.eu/?q=node/529](http://www.nexof-ra.eu/?q=node/529)
<table>
<thead>
<tr>
<th>Standard or Specification and Version</th>
<th>Source</th>
<th>NEXOF Pattern</th>
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<tr>
<td>Business Process Modeling/Workflow</td>
<td>OASIS</td>
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<tr>
<td>Asynchronous Service Access Protocol (ASAP)</td>
<td>OASIS</td>
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<td>Web Services Business Process</td>
<td>OASIS</td>
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<td>Execution Language Extension for People (WS-BPEL4PEOPLE)</td>
<td>OASIS</td>
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<td>Business Process Definition Metamodel (BPDM)</td>
<td>OMG</td>
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<td>Business Process Modeling Language (BPML)</td>
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<td>Business Process Modeling Notation (BPMN)</td>
<td>OMG</td>
<td>Assisted Composition Designer; Models Manager; Semantic Annotation Composition</td>
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<tr>
<td>Electronic Business Extensible Markup Language (ebXML)</td>
<td>OASIS</td>
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<td>Process Definition for Java (JSR 207)</td>
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<td>Web Service Choreography Interface (WSCI)</td>
<td>W3C</td>
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<tr>
<td>Web Services Choreography Description Language (WS-CDL)</td>
<td>W3C</td>
<td>Assisted Composition Designer; Dynamic Binding of Services; Models Manager; Semantic Annotation Composition</td>
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<td>Workflow XML (WF-XML)</td>
<td>WfMC</td>
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<td>Web Services Conversation Language (WSCL)</td>
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<tr>
<td>Web Services Business Process Execution Language (WS-BPEL)</td>
<td>OASIS</td>
<td>Dynamic Binding of Services; Models Manager; OSGi-based SCA-Container Semantic Annotation Composition</td>
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**Enterprise SOA Pattern**

- Enterprise SOA
- Dynamic Binding of Services during Composition
- Dynamic Timing of Services during Composition
- Assisted Composition Designer
- Model driven and Agent based Service Composition
- Rule driven Service Composition
- Runtime Semantic Monitoring
- Multi Time Transactional Service Runtime
- Front End in E-SOA
- Is a Subpart of E-SOA
- Is Applicable To
Inventory of Service Standards

- Many standards > 300
  - Only a few are used heavily: „real standards“
  - Many are used for very specific patterns
  - Even more are hardly or one-time used

- Many relevant standard bodies
  - W3C, OASIS, OMG
  - JCP, OSGi
  - OGF, DMTF, IETF
  - ETSI, CEN
Standardisation Process

OPENNESS

Identification of need → Partnering → Development of technical specs → Initial Implementation, testing → Incremental enhancement → Final, Maintenance

Preparation Phase
Development Phase
Implementation Phase
Standards created by RTD Projects

- Standards are very suitable exploitations for research results!
- Research Results are available at the end of project
- Standardisation process needs quite some time
- Standards derived from project results mostly only for preparation phase of standard process
  - Identification of needs
  - Search for partners or standardisation work groups
  - Initial document
Examples of successful Standardization

- **BPEL4CFrags: Extensions for Compliance Fragments**
  - Extension for BPEL OASIS standard

- **WSMO-Lite: Web Services Modeling Ontology**
  - Submission to W3C

- **WS-Agreement SLA Specification and Negotiation**
  - Work on OGF standard

- **Open Cloud Computing Interface (OCCI)**
  - OGF work group created

- **Open Virtualization Format V1.1.0 (OVF)**
  - Extension of DMTF standard

- **Extended Access Control Mark-up Language (XACML)**
  - OASIS standard XACML extended

- **SoaML - UML Profile and Metamodel for Services**
  - Standard for OMG developed
Lessons learned

- Organisation in RTD project and standard working group
  - even better if same person is in project and standard working group
  - extreme case: standard body is RTD project partner
    - See Serenoa
  - Successful standardisation is done by individuals or organisations in standard bodies

- Easier to extend existing standards
  - Often happened for service standards

- Coordinated participation of related RTD projects can even establish new standard work group
  - ETP helps in coordination

- Nevertheless most projects can only deliver first initial standard proposal or need for standards

- Especially STREPS need support for bringing first proposal to appropriate standard body
Conclusions

- Standards as facilitators for research result exploitation should be increased

ETP role
- coordinate standard contributions from RTD projects
- organize support for RTD project in standardisation bodies
- define focus standardisation areas based on SRA in order to analyse gaps and overlaps
- NESSI has standardisation committee

Challenges
- Resources for standard activities after RTD projects needed like support actions
- how to avoid one-time used standards
- for FI cross-ETP strategic standardisation areas