



# NEXOF-RA

## Investigation Teams Kick-off

Advanced User-Service Interaction  
*Topics of First Invitation to Contribute*

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- **Position Paper Available at**
  - [http://www.nexof-ra.eu/sites/default/files/nxt\\_gen\\_soa\\_workingdraft\\_21july2008.pdf](http://www.nexof-ra.eu/sites/default/files/nxt_gen_soa_workingdraft_21july2008.pdf)
- **End-User Empowerment**
- **Seamless Context-Aware User–Service Interaction**
- **End-Users Knowledge Exploitation**
- **Universal Collaborative Business Ecosystems.**

- **End-User Empowerment**
  - Offer a personalised operating environment
  - Allow users to create applications by searching, selecting, customising, connecting, composing, sharing and reusing front-end resources
  - Leverage web technologies, mash-ups, resource catalogues etc.

- **Seamless Context-Aware User–Service Interaction**
  - Support human users in a more effective, personalized and consistent way
  - Detect contextual information, represent it, manipulate it
  - Use this context information to adapt the UI to match each situation and user needs

- **End-Users Knowledge Exploitation**
  - Exploit users' domain knowledge and collective intelligence to improve service front-ends
  - Use this knowledge to tag resources using light semantics, to assist interaction with services, to enrich contextual information (for example by means of automatic user profiling)
  - Infer new candidate processes to be later automated (on the backend).

- **Universal Collaborative Business Ecosystems.**
  - Enterprise systems should incorporate advanced user-centric, context-aware front-ends to enable their employees and other stakeholders to exploit, and share their extensive domain expertise and their thorough business knowledge.
  - Create a sustainable ecosystem where employees, customers, end users, developers and providers will collaborate to create and improve applications by sharing, reusing, changing and combining existing context-aware components (services, contents, things...).

- **Declarative Authoring Languages for User Interfaces**
  - Suitable for specification of adaptable user interfaces for the ubiquitous web.
  - Achieve device independency and context sensitivity of the service front-end UI.
  - More abstract languages that go one step further and allow modality independent interface specifications will also be part of the investigation performed.
- **Contributions**
  - A specification of such a language, either developed within a project or available as an open standard, to be adopted by NEXOF-RA.
  - A roadmap for the evolution of Declarative Authoring Languages

- Nikos Tsouroulas, Jose Manuel Cantera (TID, Spain)
  - IT Leaders
- Fabio Paternó (CNR, Italy)
  - Representing FP7 OPEN & ServFace
- Jean Vanderdonckt (UCL, Belgium)
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- José Manuel Cantera (TID, Spain)
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- Javier Soriano (UPM, Spain)
  - Representing Eur-CELTIC MyMobileWeb & NSP EzWeb

- **7 members, 4PP received**
- **Project Contributions**
  - FP7 OPEN / ServFace : TeresaXML Spec
    - <http://giove.isti.cnr.it/teresa.html>
  - FP7 Human : UsiXML Spec
    - <http://www.usixml.org>
  - FP6 Wear@IT : Markup languages /implementation for context-aware industrial applications
  - MyMobileWeb : IDEAL Language Specification
    - <http://mymobileweb.morfeo-project.org/specs/ideal/>

- **Context Model**
  - A standardised model for representing the most fundamental aspects of the Context
    - User Profile: global preferences, interests, skills and social network
    - Delivery Context: device, network, user agent and local settings
    - Environment: location and moment in time
  - The adopted Context Model must be extensible allowing other properties and aspects (standard or application-specific) to be included in the future

- **Universal and Harmonized Context API**
  - Platform independent, Generic and Extensible, allowing to work with different vocabularies of contextual properties
  - Support the notion of properties, aspects and components of the context
  - It should provide not only query-response functions but also publish and subscribe mechanisms for notifying contextual changes to applications

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- Johan W. Koolwaaij (Telematica Instituut, Netherlands)
  - Representing Freeband Awareness (National Funded Project)
- Mehdi Khouja, Carlos Juiz (UIB, Spain)
  - Representing project SOSA (National Funded Project)
- Lorant Farkas (Nokia Siemens Networks, Hungary)
  - SharME & Other internal NRC projects
- Fano Ramparani (France Telecom)
- José Manuel Cantera (TID, Spain)
  - Representing Eur-CELTIC MyMobileWeb & NSP EzWeb
- Javier Soriano (UPM, Spain)
  - Representing Eur-CELTIC MyMobileWeb & NSP EzWeb

- 10 members, 5PPs received
- Project Contributions
  - FP7 Human : Context Model coming from the UsiXML project
    - <http://www.usixml.org>
  - SOSA : Context Ontology based on CoxEI (context elements)
  - SharME : Context Mediation Layer & API
  - Freeband Awareness: Context Management Framework (CMF)
  - MyMobileWeb :
    - Delivery Context Ontology : <http://www.w3.org/TR/dcontology>
    - Universal Context API leveraging DCCI and the DDR Simple API