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Project Overview

- Background, historical context, motivations

- What we set out to do

- What we did (and how we did it)

- Unifying themes and connections

- What difference did we make?

Background

- 5 partner collaborative EU project

- Originated within W3C's SW Activity

- Extended SWAD(-MIT) previous development model

- *About* and *in support of* W3C's SW Activity, but managed independently

- Complements and feeds into 'standards track' work

Project Partners

- W3C / ERCIM (initially INRIA)

- ILRT, University of Bristol (management)

- HP Labs

- Stilo

- CCLRC / RAL (UK W3C office)

The Original Idea

What did we set out to do? From the project objectives, SWAD-Europe...

- Aims to support W3C's Semantic Web initiative in Europe, providing targeted research, demonstrations and outreach.

- Aims to support the development and deployment of W3C Semantic Web specifications through implementation, research and testing activities

*This involves finding and maintaining a balance between "in-house" Open Source **tool development**, **community building**, **outreach** and **evangelism**, combined with more technologically advanced **research** and **analysis** to support and field-test Semantic Web standards.*

Semantic Web & RDF 1997-2001: Context and Challenges

- Technology perceived as complex, over-ambitious, with poorly formalised specs.

- Software tools immature, with no standard APIs and query languages (hence applications were tightly bound to tools)

- Relationship to XML tools, standards was unclear

- Enthusiasm from early adopters in RDF IG

What we set out to do

- Reviewing and developing tools to access, store, search Semantic Web data

- Case studies and demos, e.g. thesaurus, SW blogging

- Developer discussion on "seed applications", e.g. image annotation, calendaring

- Technology integration: XML and RDF, schema languages, SVG, query, Web Services

- Basics of Semantic Web as a technology platform

Answering questions...

- How do I combine RDF and XML Schema technology

- What is the state of the art in RDF databases, query languages...

- What practical techniques are there for combining Dublin Core, educational, multimedia, and rights metadata within a single application?

- *Who else is exploring these issues?*

What we did

- Tech coordination (WP2); dissemination (WP3); management WP (WP1)

- *Relationship to Web mainstream*: SW + Web Services (WP4), XML+RDF (WP5/6)

- *Pre-standardisation:* Database, Query and APIs (WP7, WP12.4)

- *digital library, real world classification:* Thesaurus / SKOS (WP8), Annotations (12.2), Images (WP9, 12.3)

- *Platform maturity:* SW scalability, storage (WP10) incl. Redland/Raptor

- *(Practical) blue skies:* Distributed Trust Systems (WP11)

- *Complete demos:* Open Demonstrators WP (WP12.1)
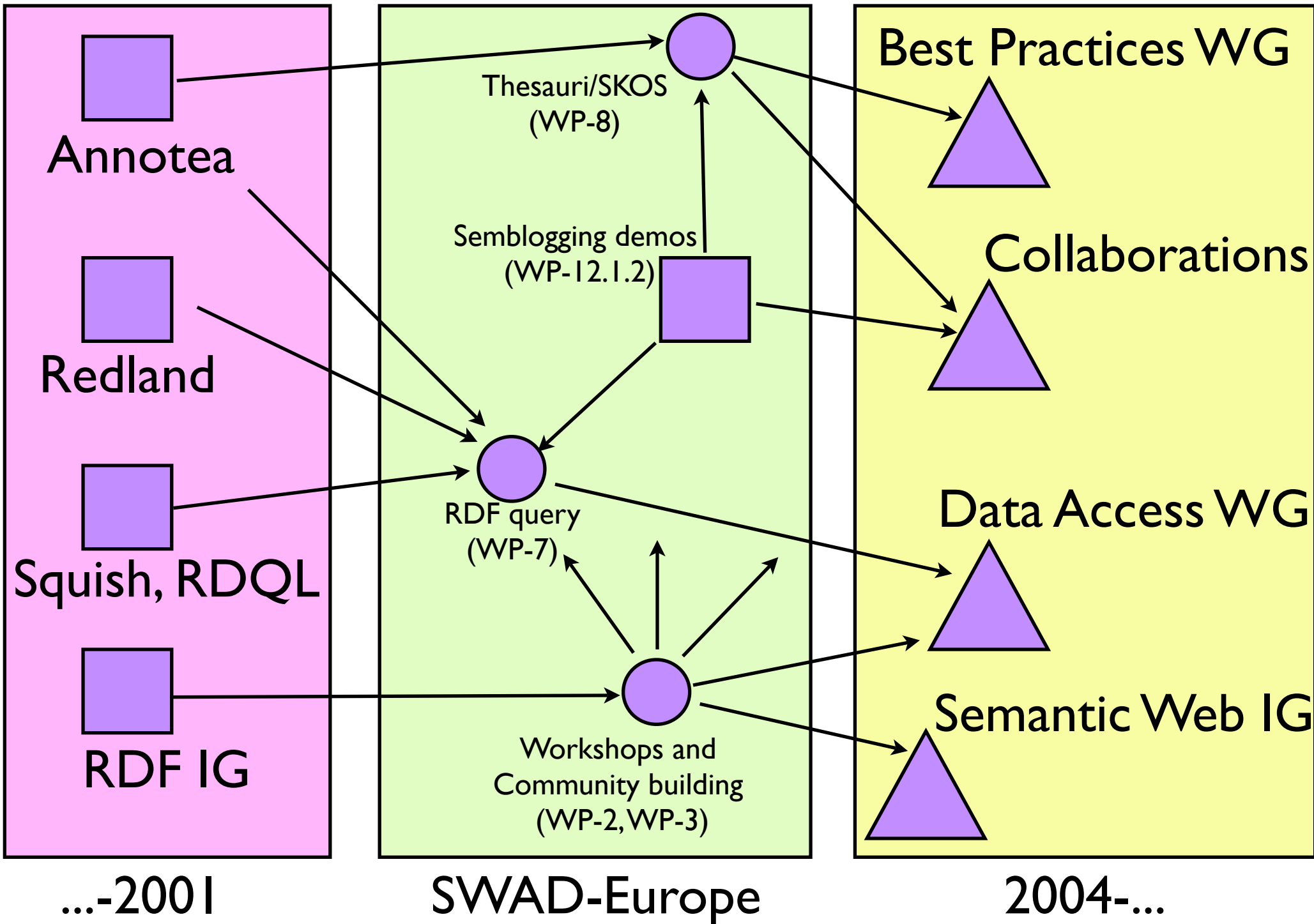
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Unifying themes and connections

Project-wide integration in EU projects is traditionally expensive. Easier here as our *working premise* is a common technology stack. Links were natural, collaborative rather than brittle dependencies.

A few examples:

- Query work (WP7) used in tools (Redland/Jena), Annotations (client, server)

- Thesaurus/SKOS work (WP8) picked up for use in Annotations, Open Demos, and by other projects who follow our (public) work...

- Redland library (ILRT) used in Annotea client (W3C)

- Test cases work from WP7 helped motivate W3C's Data Access WG; prototype implementation in Redland

- WP 9 Services use Web Service technology (explored in WP4)

- Community building through SW IG, SWS IG, Test case collaboration, Calendar, Image, FOAF workshops, ...

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Annotea

Redland

Squish, RDQL

RDF IG

Thesauri/SKOS
(WP-8)

Semblogging demos
(WP-12.1.2)

RDF query
(WP-7)

Workshops and
Community building
(WP-2, WP-3)

Best Practices WG

Collaborations

Data Access WG

Semantic Web IG

...-2001

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2004-...

What difference did we make?

- Re-engaged digital library / thesaurus community (via SKOS)
- Shown that Semantic Web applications can be simple, practical and *easy*
- Contributed to editing and chairing of RDF Core standards, and provided solid opensource C implementation in Redland/Raptor
- Helped establish "Semantic Web phase two" groups: Query/DA WG, Best Practices WG and Semantic Web IG that continue SWAD-Europe themes
- Held workshops, focussed on community building and online presence

What worked well?

- Flexibility, ability to respond to trends

- Benefit of shared SW technology stack

- Diversity of topics lowered risk (some great themes, some OK themes)

- Open, collaborative, practical

- Near term "walk before we run" theme was appreciated both by SW-skeptics and enthusiasts

Objectives revisited?

The overarching aim of the project is to provide, through all appropriate means, a body of answers to questions that have to date gone unanswered, and to foster grassroots communities within which such concerns are addressed.

- Stronger on latter than former (good community, answers still being debated!)

- Weaker on over-arching framework; stronger on demos, examples, practical surveys

- Delivered on research demos, contributed to technology maturation (difficult to measure!)

- Diverse workplan emphasised flexible and general-purpose strengths of Semantic Web technology

- Unique in emphasising the practical and "Web" aspects of Web for Web developer audience

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Wrapping up

- Final Workshop on FOAF, Social Networking and the Semantic Web with DERI Galway

- Continuing themes (SKOS/thesauri, blogging, image metadata, Semantic portals, Calendar, query) in other fora

- Finalise reports and restructure Web site

- Reward innovation with T-shirts!

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Thank you

Questions?