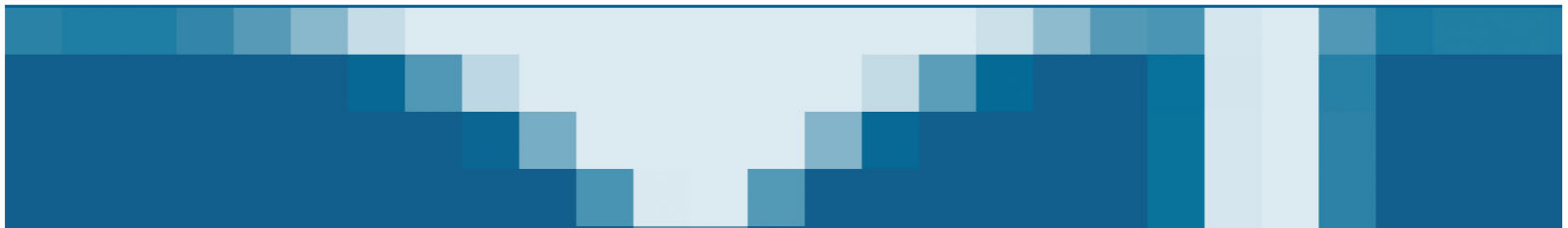


LEONARDO



OUR MUSE

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Leonardo da Vinci (1452 -1519)

“not just an ordinary painter, but the prototype of the universal genius, the Renaissance man; prodigious polymath.....Painter, sculptor, engineer, astronomer, anatomist, biologist, geologist, physicist, architect, philosopher, actor, singer, musician, humanist”

SITUATION TODAY

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- Observation of the interconnection between disciplines leads to new insight
- Hyperspecialisation today contributes to a narrowness of vision
- Enabling power of IT and the information explosion it set off is continuing exponentially
- Current state of the information industry is that there are publishers with portals and they have locked themselves and their users into their portal with their content being searched by their search engines with their tools.
- Feature creep and the price paid to access these services is increasing
- Allows organizations like the EPO to set a standard through free services
- Threatening the viability of information vendors, the quality of their work

THE ROAD TO NOW

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- Retrieving information is not trivial, but are we doing it the best way possible.
- Talk to information professionals and discover what do they want.
- IR scientists are the only ones that hold any hope for dealing with this
- Find commercial partners that have experience in building and maintaining content, implementing and delivering solutions to market
- Build an open community
- Motivate professional services and product development teams
- Using a workbench that pulls it all together

OUR VISION

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We have to bring the right information to the different communities in the company at the right time in order to enable them to make the right decisions

Henk Thomas

With the state of current technology we have to run just to stand still

Stephen Adams

We have to bring the right tools and information to the community at the right time in order to enable them to make the right decisions

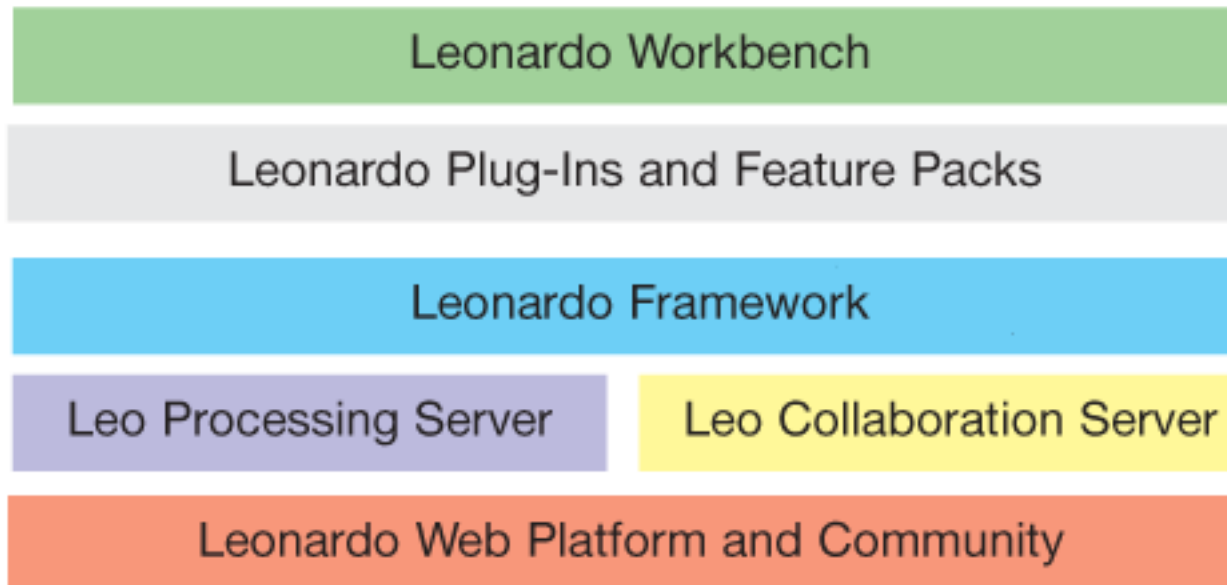
Only if we improve the state of technology together, can we move forward

OUR APPROACH

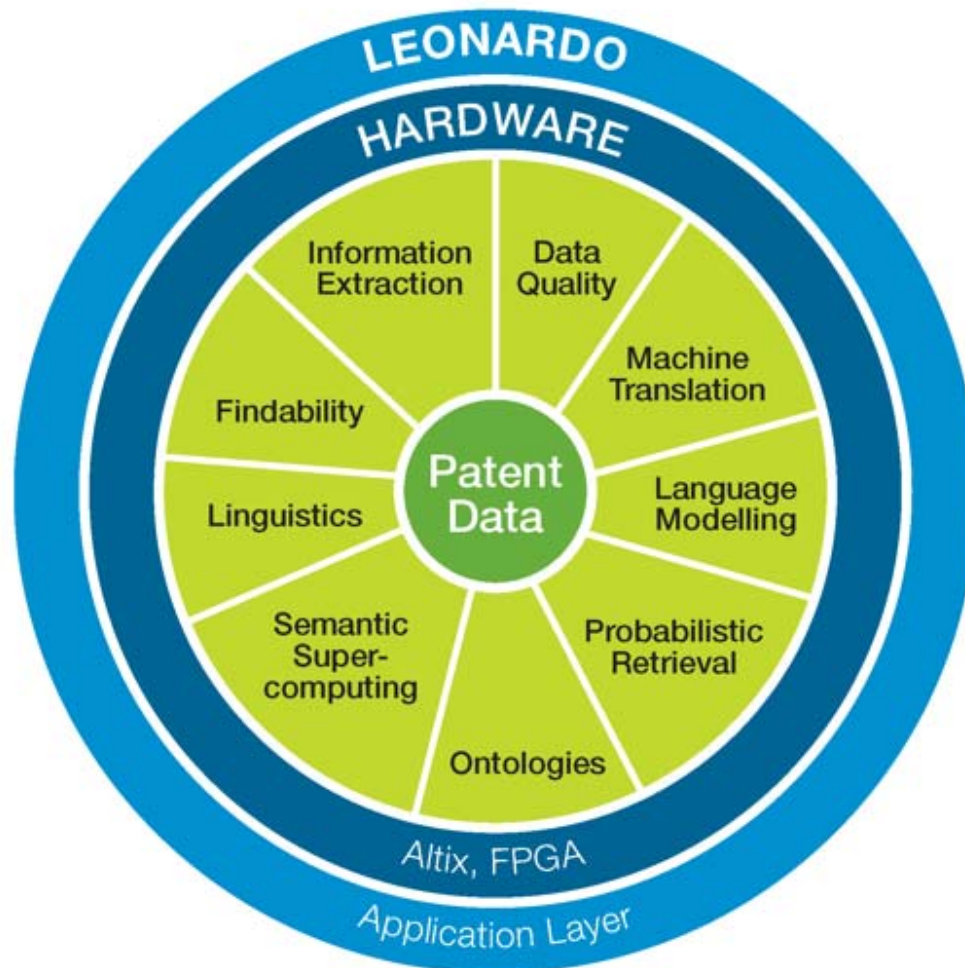
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- **Authoritative content** that can be made available at **marginal cost** both for IR and IP and extended to other types of information users
- **Platform** for interacting with this IP content and it needs to be extensible to handle any other content
- Should be **open source** both to take advantage of libraries of tools that have been developed before but also to encourage 3rd party developers to use the same tools
- Engage **commercial partners** that have experience in building and maintaining content, implementing and delivering solutions to market
- Too difficult for any one company, it will require **the effort of a community** of people; information scientists, information professionals, end users, 3rd party developers.
- There needs to be a **commercial marketplace** as well to drive the incentive on the part of the producers to become involved in the community

LEONARDO OVERVIEW

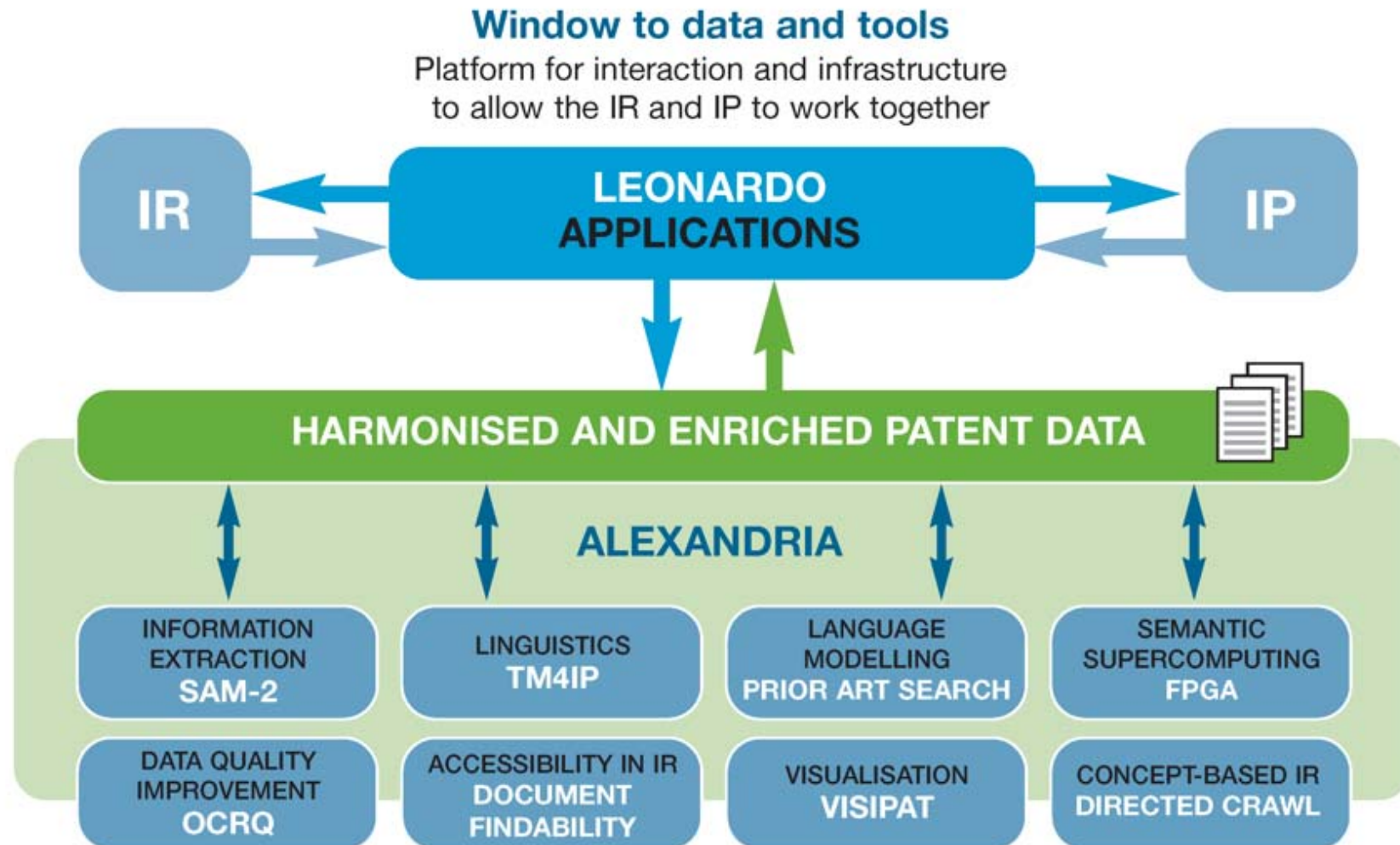


LEONARDO IN CONTEXT

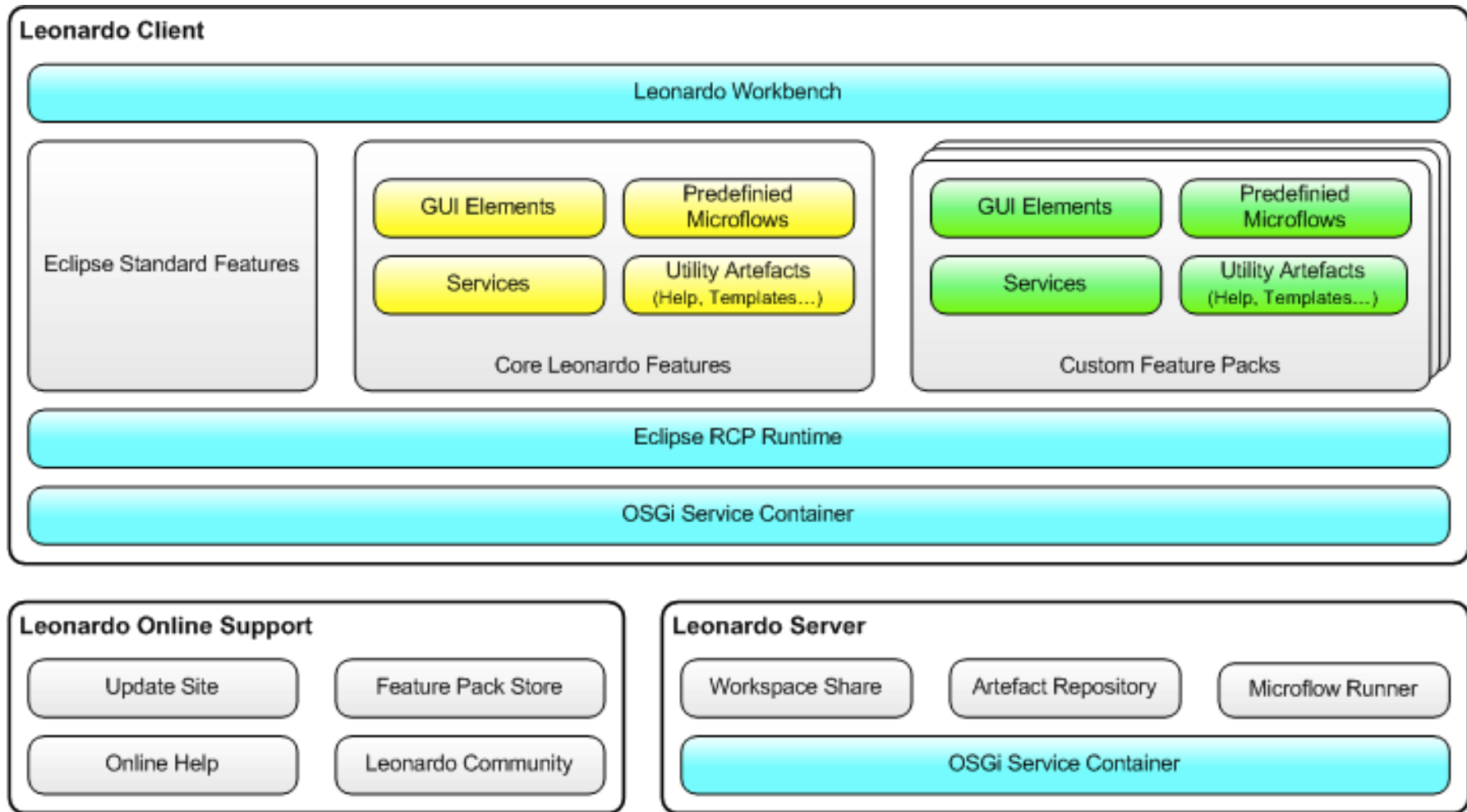


- LEONARDO** Application Layer
- HARDWARE** Altix, FPGA
- ALEXANDRIA** Patent Data Repository
- Scientific Projects

LEONARDO AND CURRENT PROJECTS



LEONARDO ARCHITECTURE



WHAT'S COMING IN 2009?

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- 1st version of Leonardo Framework API Q4 2008
- Release Candidate 1 of the Leonardo Workbench in Q1 2009
- Leonardo Community Web platform Q2 2009
- Release 1 of the Collaboration Server in Q3 2009
- Leonardo Processing Server 2009

LEONARDO WORKBENCH

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- The Leonardo Workbench serves as the **central GUI** for information workers and developers, information retrieval specialists or vendors that produce specific functionalities like graphical reports, visualization tools, data source connectors or advanced IR algorithms.
- Primary objective is to provide users with continually **growing library of tools** that enable users to access and exploit repositories such as Alexandria and other external repositories.
- Designed to **foster technology transfer** between different parts of the Leonardo Community
- Workbench for the Information professionals to **access enhanced data** and take advantage of sophisticated tools for searching and retrieving patent data and other scientific literature

LEONARDO PLUGINS AND FEATURE PACKS

- Encapsulated functionalities for processing of data and interfacing with the user, utilizing the interfaces exposed by the Leonardo Framework and integrating into the Leonardo Workbench.
- Typically Plug-Ins and Feature-Packs integrate functionalities not included in the Leonardo Framework to create solutions for specific user needs.
- Example of a plugin is a feature for visualizing 3D information landscapes.
- Example of a feature pack is set of plugins related to automatic, semi-automatic and manual annotation



LEONARDO FRAMEWORK

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- An architectural concept and its basic implementation to allow functional software components to integrate within the Leonardo system.
- This includes APIs, basic server components, connectors, process flow control, commercial context, open Interfaces and the respective documentation
- The development framework for clients and 3rd parties to create their own solutions including their own knowledge base (ontologies, data sources etc)
- Open, transparent, extensible framework for the continuous introduction of new data and information retrieval technologies

LEONARDO PROCESSING SERVER

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- Allows 3rd party vendors to port Leonardo Framework support to various large scale and supercomputing hardware.
- Allows Leonardo Feature sets and Plugins (e.g. data processing pipelines) to get easily upscaled from a client side processing to server side processing.
- The Leonardo Processing Server can scale from a pure single-user Workstation service, via a corporate workgroup server up to a possible Web-Hosted Server solution.

LEONARDO COLLABORATION SERVER

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- Leonardo Publishing Server allows preset Leonardo environment to be canned and published within a corporate intranet for browser-access by the Information Users
- Leonardo Collaboration Component allows for Collaboration between various Workbenches and includes a Management Console or Dashboard GUI for handling Resources
- Leonardo Data Repository allows for the storage, retrieval and sharing of Data repositories between Leonardo Users (Ontologies, Work files, Local Indices, etc.)
- Leonardo Group and User management allows defining Workgroups and Users within this workgroup
- The Leonardo Collaboration Server can scale from a pure single-user Workstation service, via a corporate workgroup server up to a possible Web-Hosted Server solution.

LEONARDO WEB COMMUNITY PLATFORM

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- A community website that allows the Leonardo Community to take advantage of the Leonardo Framework.
- It allows requests for new extensions to the Leonardo Framework and the implementation of new functionalities.
- Access to the Leonardo Framework
- Experimental Leonardo Processing Servers
- Discussion Panels
- Special Interest Groups
- Access to Documentation
- Certification of 3rd party plugins
- Marketplace
- News feeds and other information resources

THANK YOU

For more information, visit the Leonardo booth at C3 in the exhibit hall.