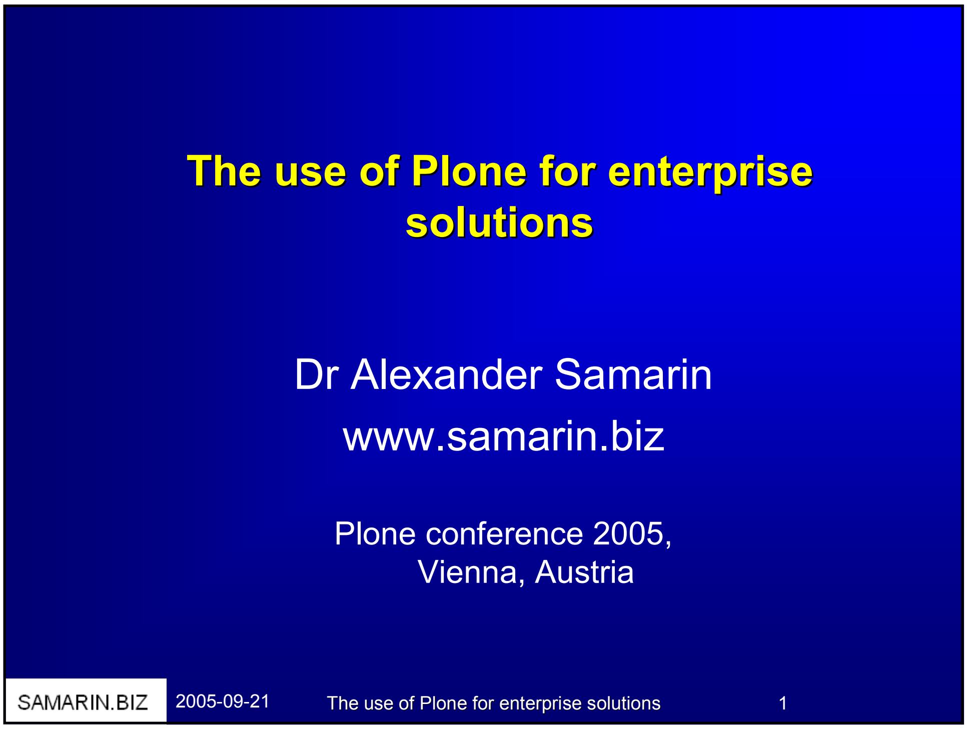

The use of Plone for enterprise solutions

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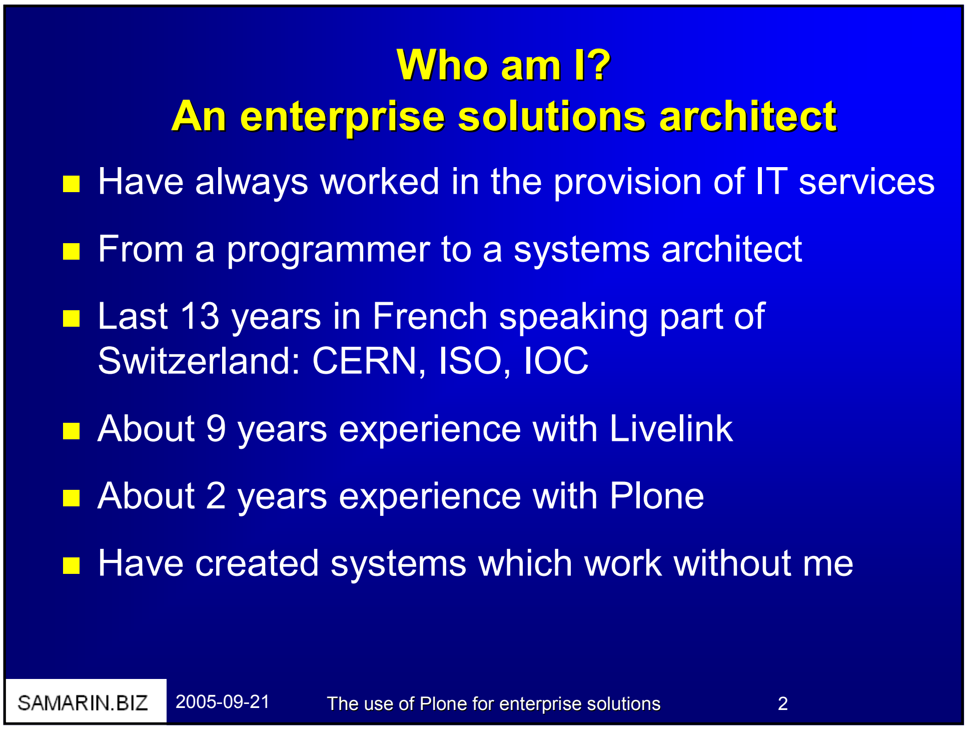
www.samarin.biz

Plone conference 2005,
Vienna, Austria



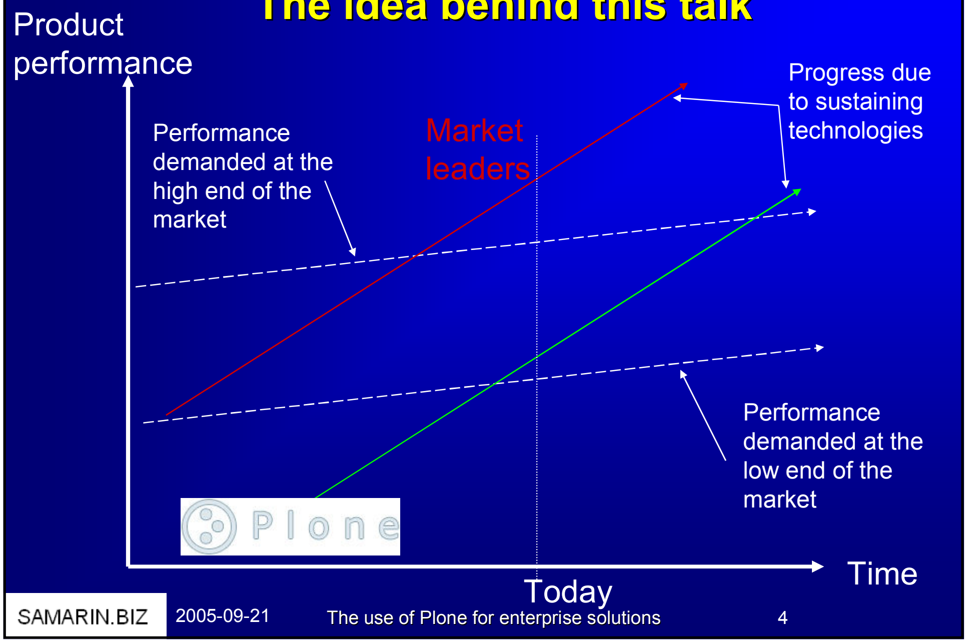
Who am I?
An enterprise solutions architect

- Have always worked in the provision of IT services
- From a programmer to a systems architect
- Last 13 years in French speaking part of Switzerland: CERN, ISO, IOC
- About 9 years experience with Livelink
- About 2 years experience with Plone
- Have created systems which work without me

Professional specialisations and interests

- Instrumental programming
- Computer graphics – Ph.D.
- TeX/LaTeX – “The LaTeX Companion”
- Document management – Livelink at the ISO
- ISO Standards production automation
- Improving business process management systems
  - effectiveness (“Do the right things”)
  - efficiency (“Do the things right”)

The idea behind this talk

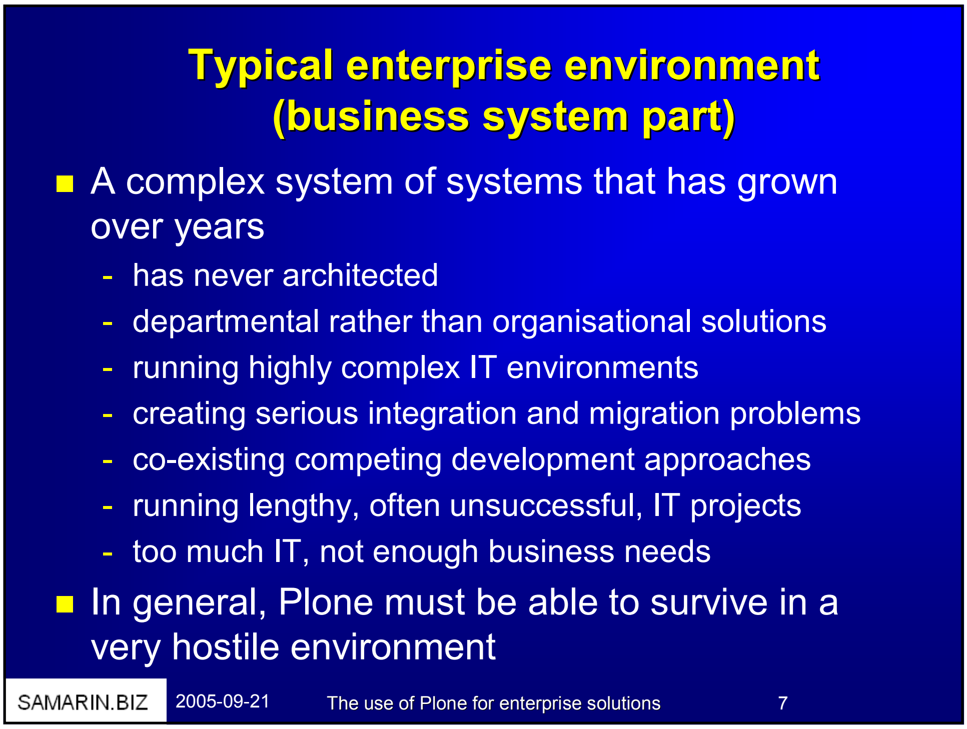

Product performance
Performance demanded at the high end of the market
Market leaders
Progress due to sustaining technologies
Performance demanded at the low end of the market
Plone
Today
Time

Plone implementations are usually socio-technical systems

- Motivation insight
  - Who benefits?
  - Who pays?
  - Who provides?
  - Who loses?
- How you do something may be more important than what you do

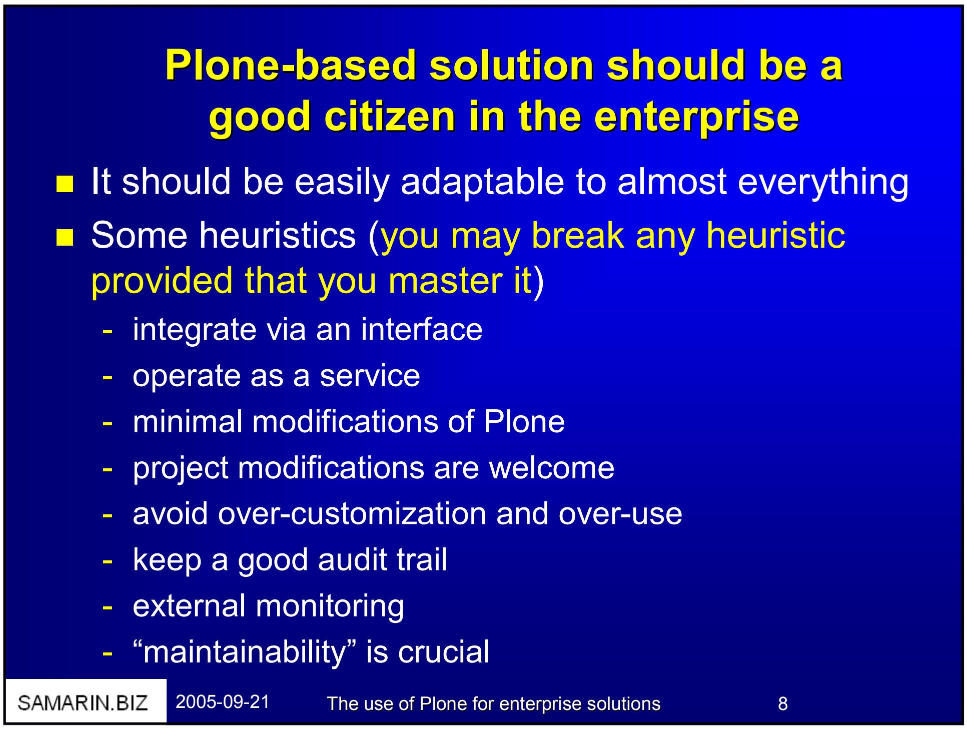
Typical enterprise environment (people part)

- Technical staff members
- Developers
- Architects
- Solution architects
- Project managers
- IT managers
- Business process owners
- Other users



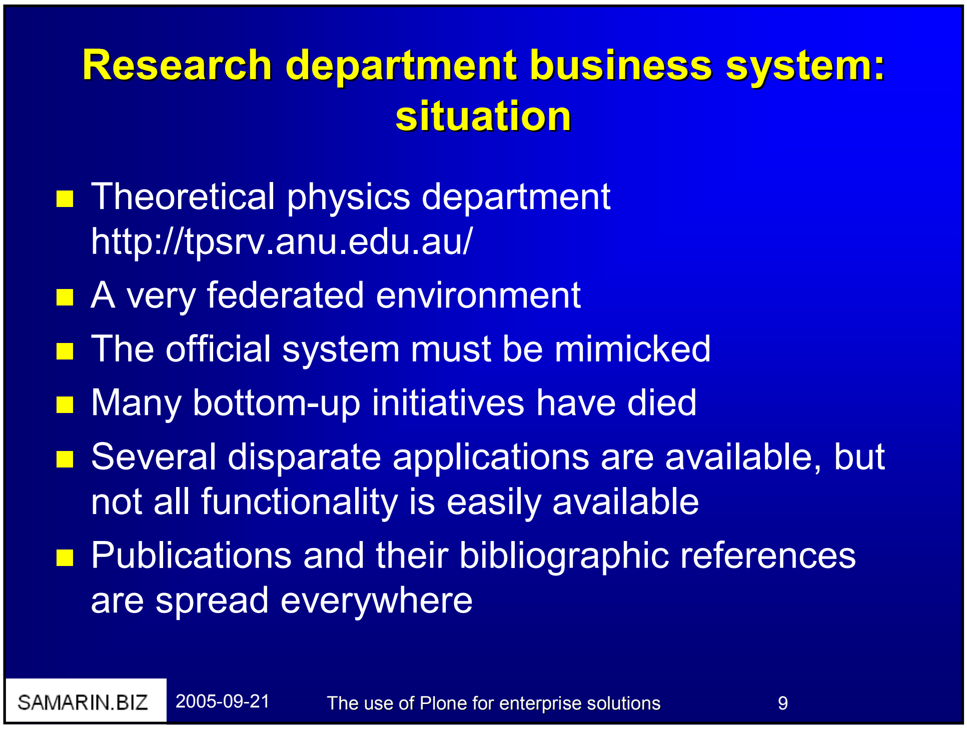
Typical enterprise environment (business system part)

- A complex system of systems that has grown over years
  - has never architected
  - departmental rather than organisational solutions
  - running highly complex IT environments
  - creating serious integration and migration problems
  - co-existing competing development approaches
  - running lengthy, often unsuccessful, IT projects
  - too much IT, not enough business needs
- In general, Plone must be able to survive in a very hostile environment



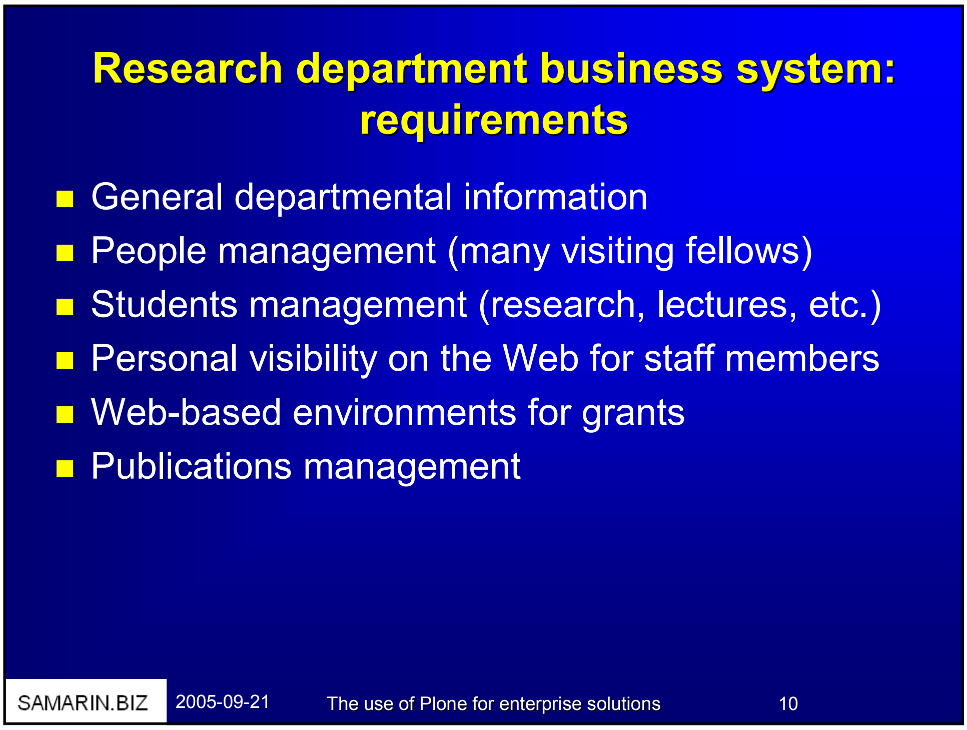
Plone-based solution should be a good citizen in the enterprise

- It should be easily adaptable to almost everything
- Some heuristics (you may break any heuristic provided that you master it)
  - integrate via an interface
  - operate as a service
  - minimal modifications of Plone
  - project modifications are welcome
  - avoid over-customization and over-use
  - keep a good audit trail
  - external monitoring
  - “maintainability” is crucial



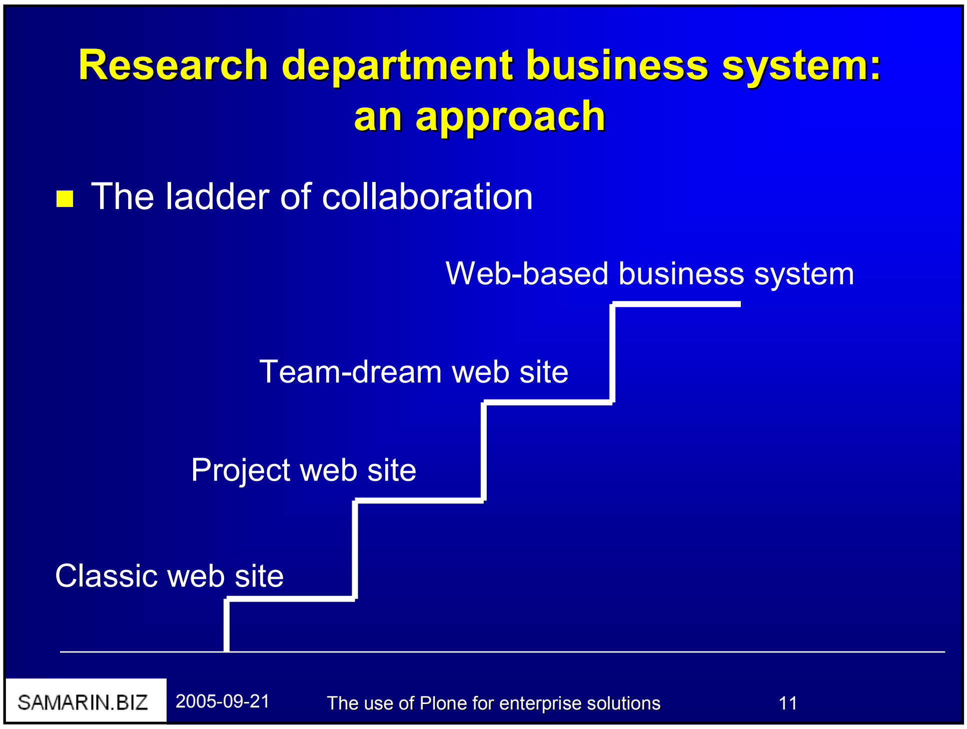
Research department business system: situation

- Theoretical physics department http://tpsrv.anu.edu.au/
- A very federated environment
- The official system must be mimicked
- Many bottom-up initiatives have died
- Several disparate applications are available, but not all functionality is easily available
- Publications and their bibliographic references are spread everywhere



Research department business system: requirements

- General departmental information
- People management (many visiting fellows)
- Students management (research, lectures, etc.)
- Personal visibility on the Web for staff members
- Web-based environments for grants
- Publications management



Research department business system: an approach

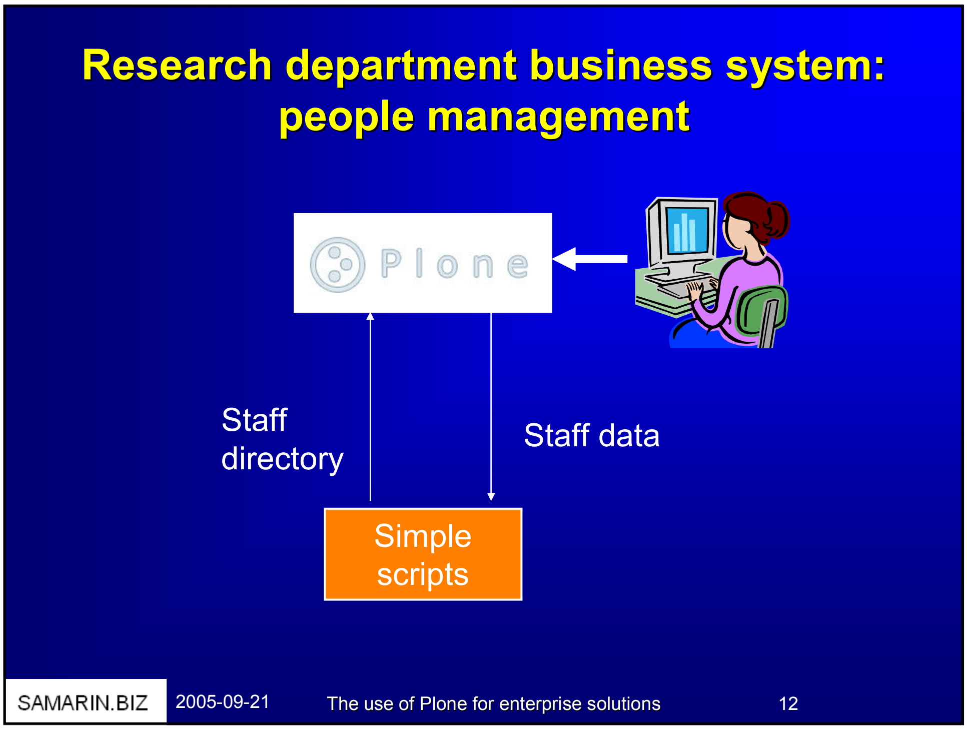
- The ladder of collaboration

Web-based business system

Team-dream web site

Project web site

Classic web site

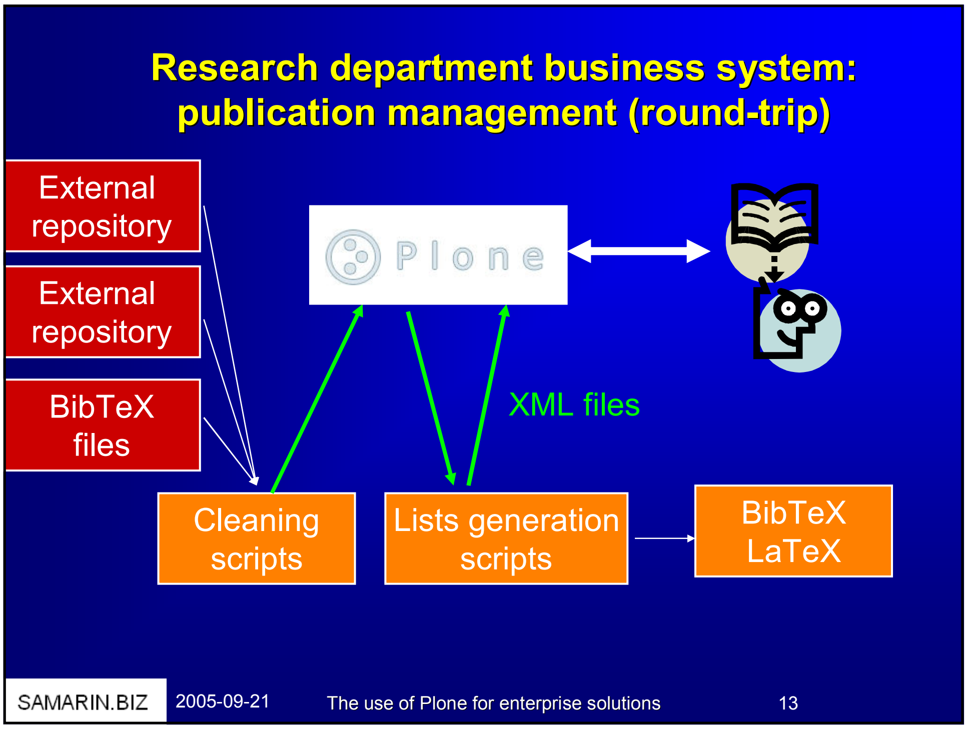


Research department business system: people management

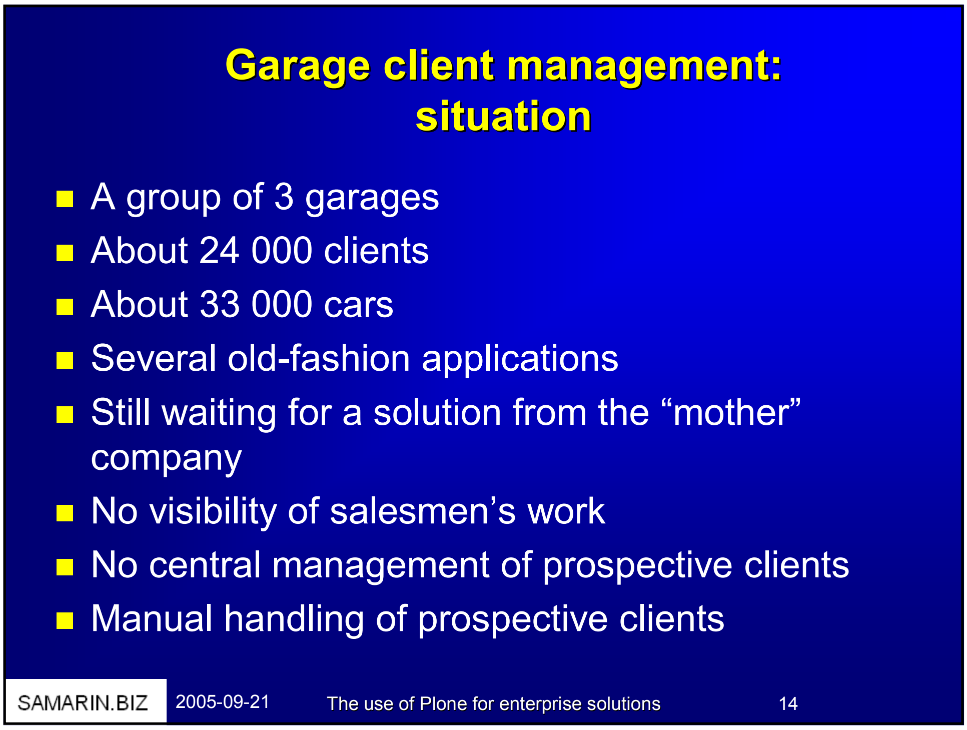
Staff directory

Staff data

Simple scripts



Research department business system: publication management (round-trip)



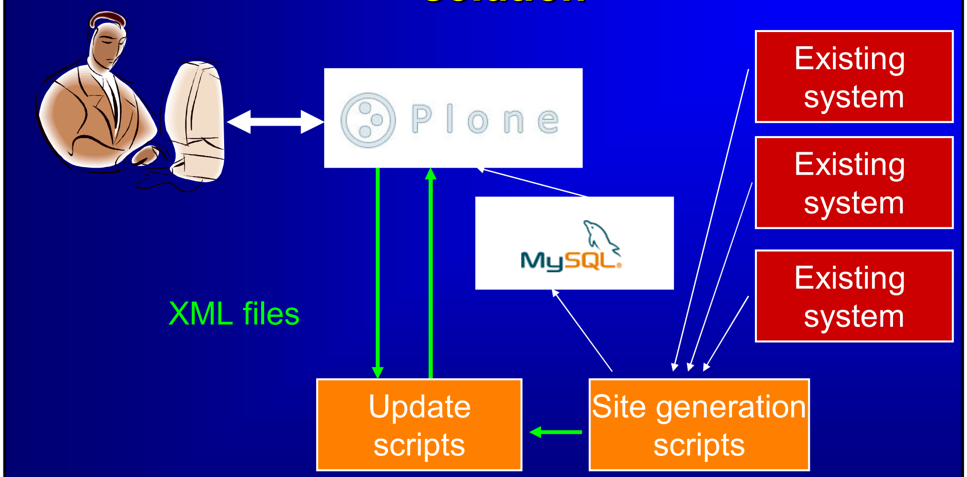
Garage client management: situation

- A group of 3 garages
- About 24 000 clients
- About 33 000 cars
- Several old-fashion applications
- Still waiting for a solution from the “mother” company
- No visibility of salesmen’s work
- No central management of prospective clients
- Manual handling of prospective clients

Garage client management: requirements

- Almost all information is mastered in other repositories/systems
- Some information has to be mastered in Plone
- All information shall be aggregated around the user’s needs (salesmen, manager, etc.)
- Good navigation is essential
- Minimal maintenance
- Automatic matching between client preferences and available cars

Garage client management: solution



Plone

MySQL

Existing system

Existing system

Existing system

XML files

Update scripts

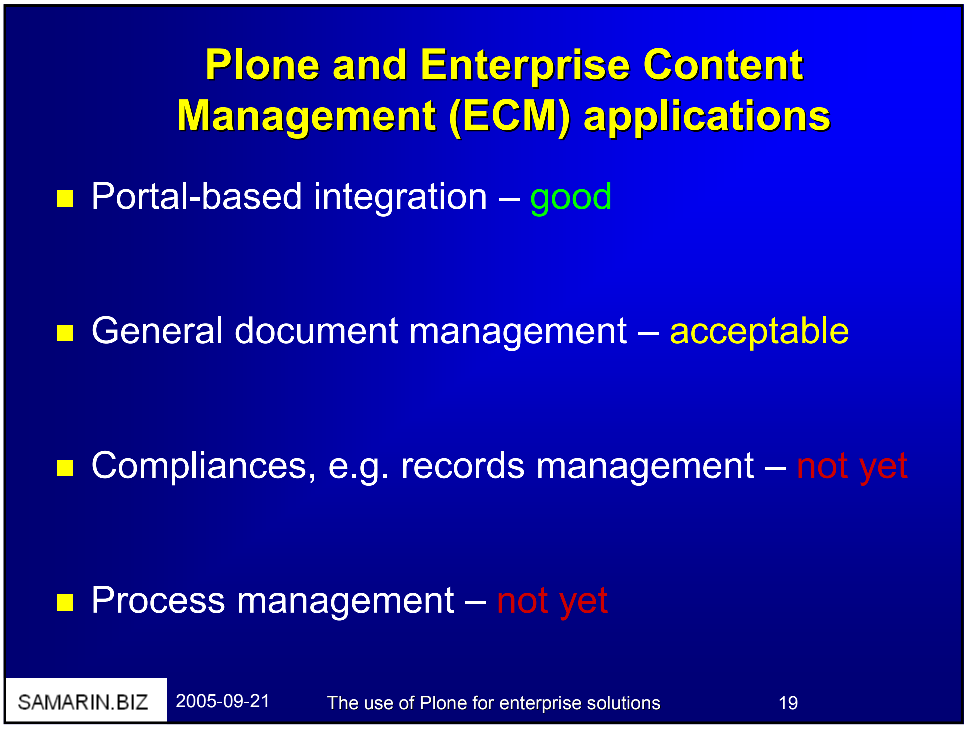
Site generation scripts

Principles of these solutions

- Plone out-of-the-box
- A few mature products were added
- Development (for Plone)
  - a few archetypes (very simple)
  - Plone API
- All business logic is in external scripts, not in Plone
- Easy to maintain without modifying Plone
- Easy to maintain without knowledge of Python

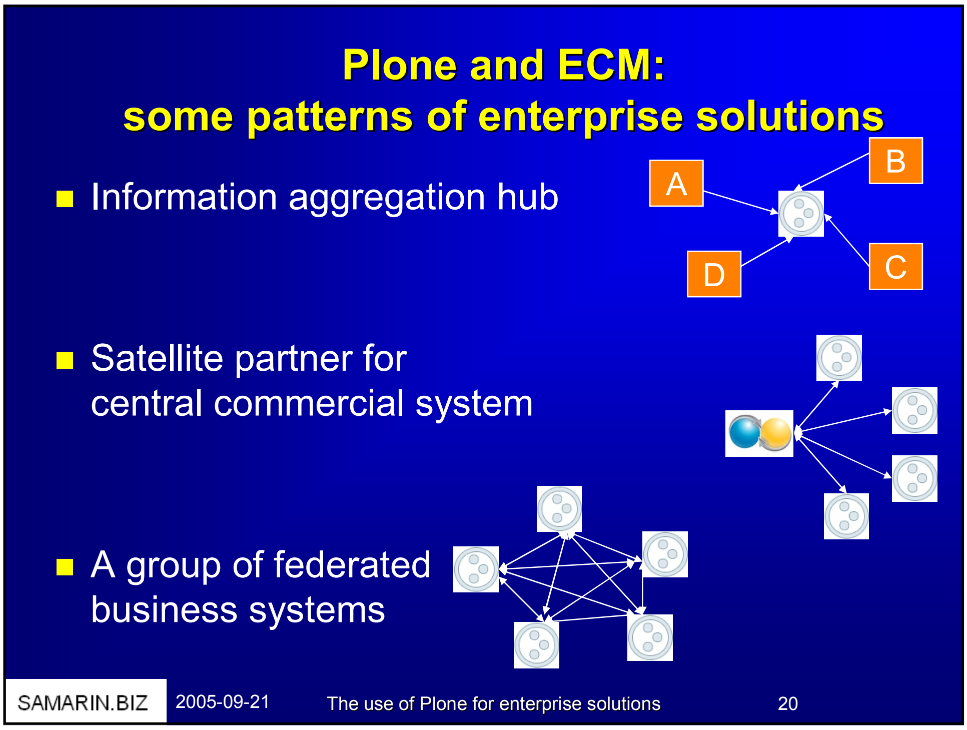
Plone API (PAPI)

- The enabler for enterprise solutions
- XML-RPC based
- Adapted to a few XML-RPC implementations
- Implements basic operations for archetype-based objects
- At present, it is just a primitive implementation which needs to be properly re-engineered



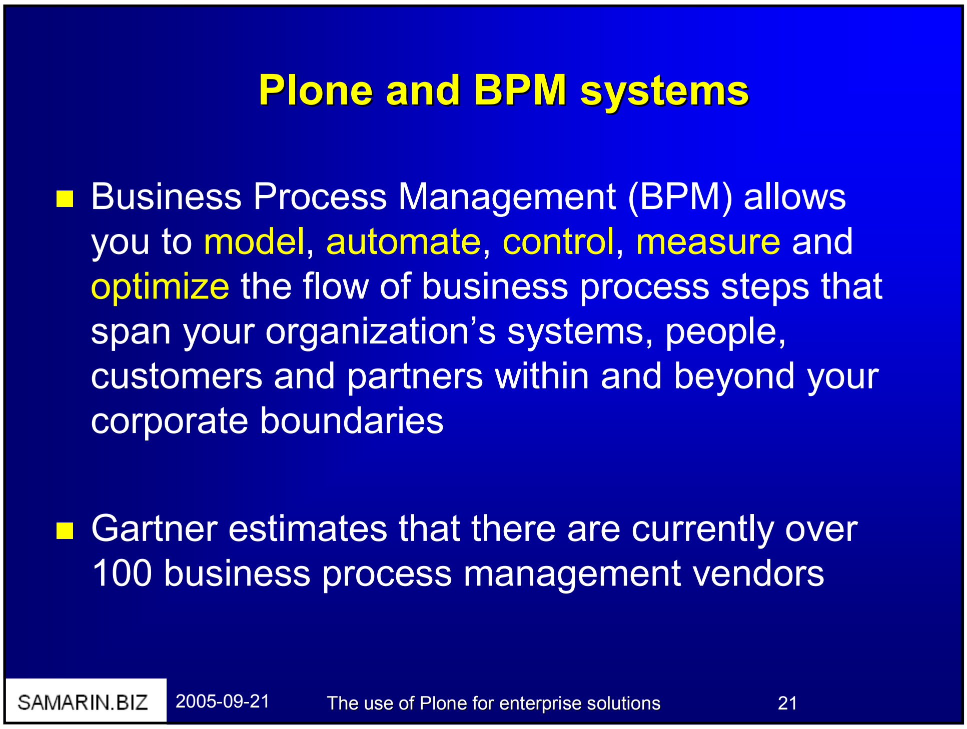
Plone and Enterprise Content Management (ECM) applications

- Portal-based integration – good
- General document management – acceptable
- Compliances, e.g. records management – not yet
- Process management – not yet



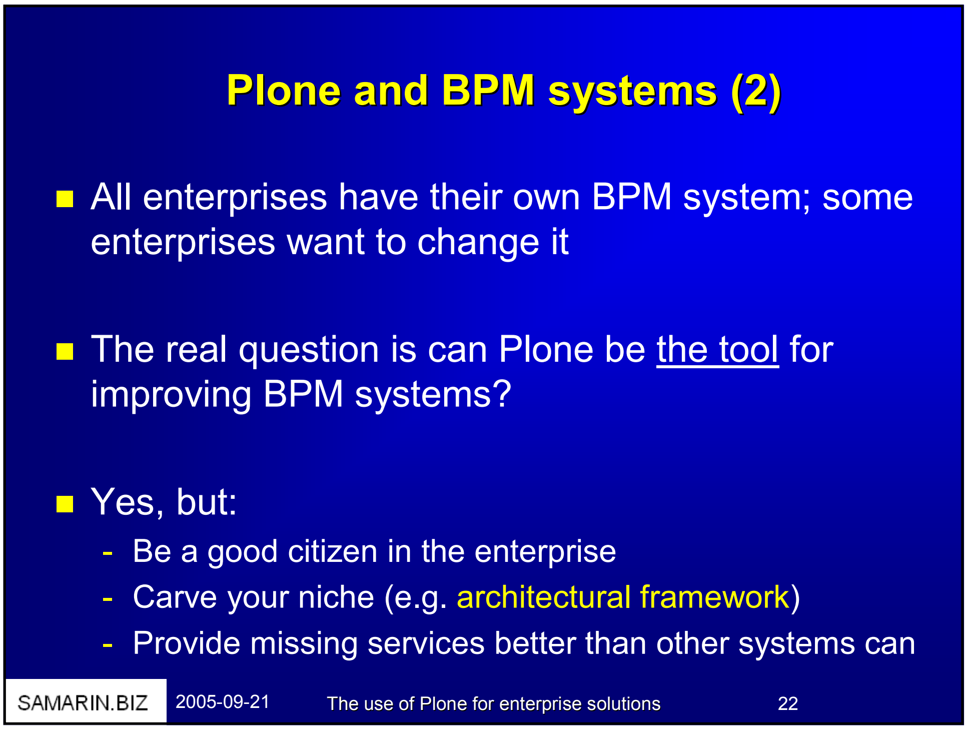
Plone and ECM: some patterns of enterprise solutions

- Information aggregation hub
- Satellite partner for central commercial system
- A group of federated business systems



Plone and BPM systems

- Business Process Management (BPM) allows you to model, automate, control, measure and optimize the flow of business process steps that span your organization’s systems, people, customers and partners within and beyond your corporate boundaries
- Gartner estimates that there are currently over 100 business process management vendors



Plone and BPM systems (2)

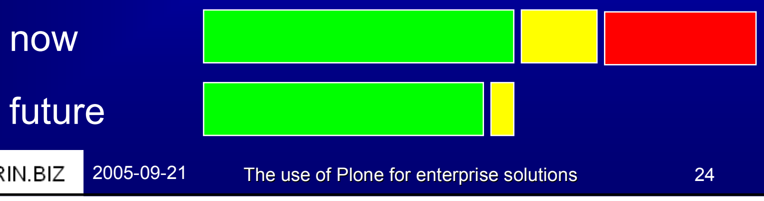
- All enterprises have their own BPM system; some enterprises want to change it
- The real question is can Plone be the tool for improving BPM systems?
- Yes, but:
  - Be a good citizen in the enterprise
  - Carve your niche (e.g. architectural framework)
  - Provide missing services better than other systems can

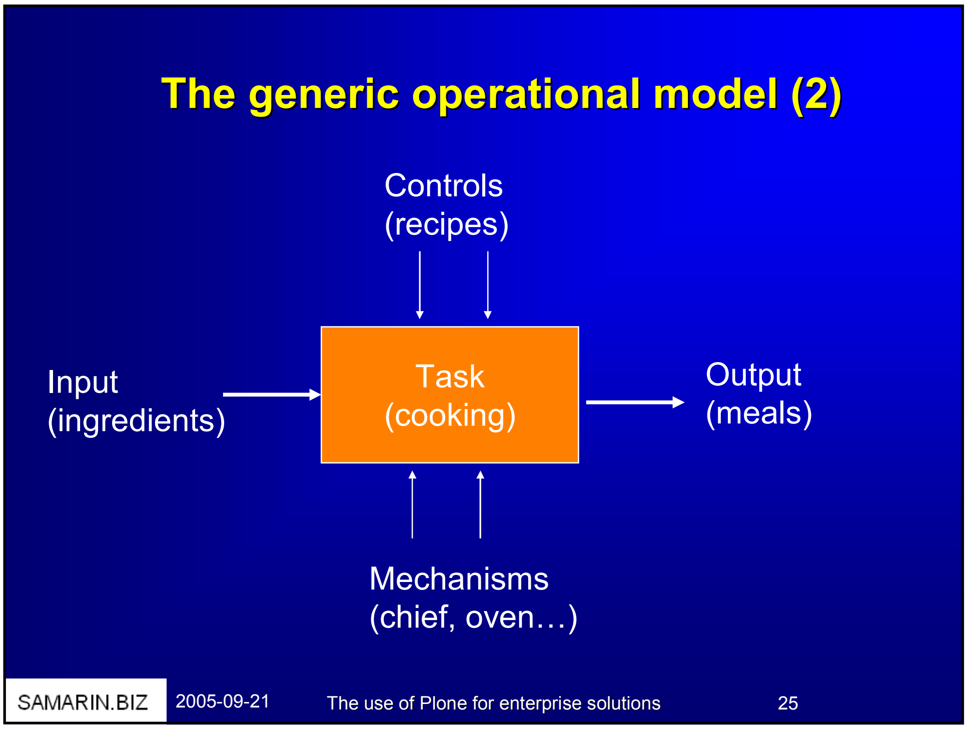
Major components of the framework for improving BPM systems

- Systemic approach and adaptability
- Generic operational model (for business)
- Advanced multi-layer model (for IT)
- New features are added like pieces of Lego
- Proven that BPM systems can be improved faster, better and less expensively than is usually perceived

The generic operational model

- Business events, business procedures, business regulations and rules, business tasks, and business entities/objects
- Classification of the tasks: intellectual, verification, and administrative
- The aims of business process automation are to change working time spent for these type of tasks





The generic operational model (2)

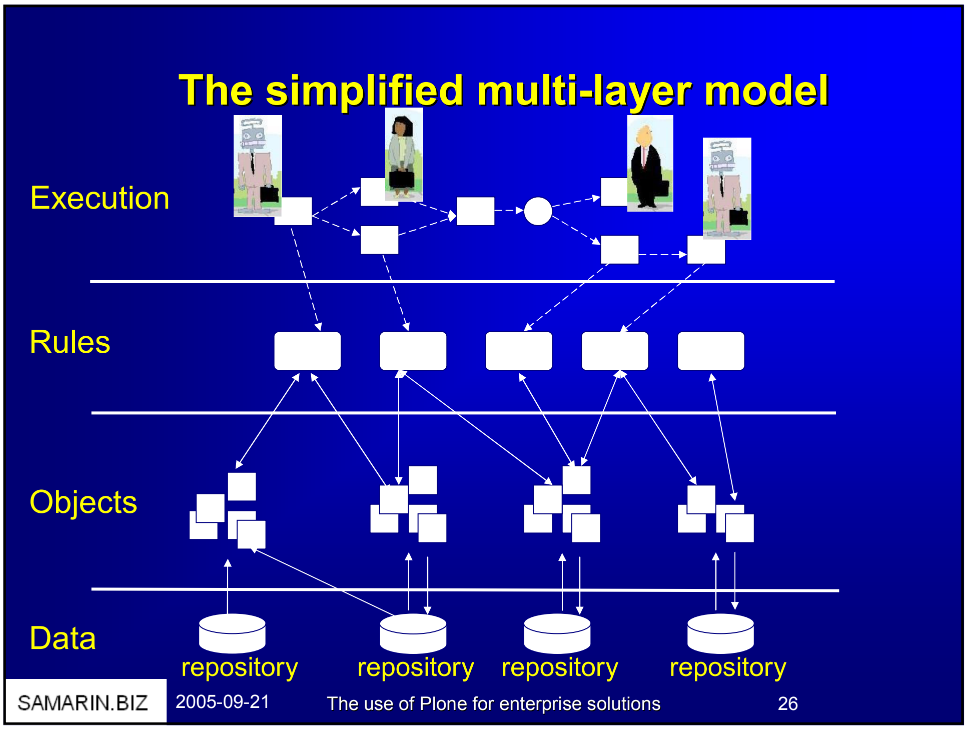
Controls
(recipes)

Input
(ingredients)

Task
(cooking)

Output
(meals)

Mechanisms
(chief, oven…)



The simplified multi-layer model

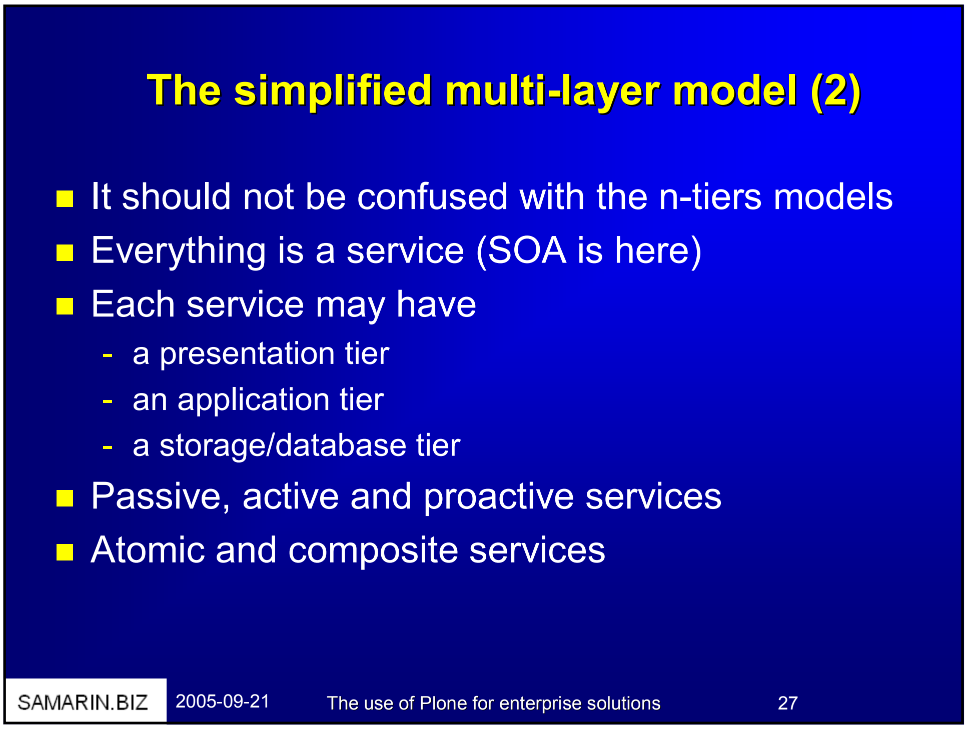
Execution

Rules

Objects

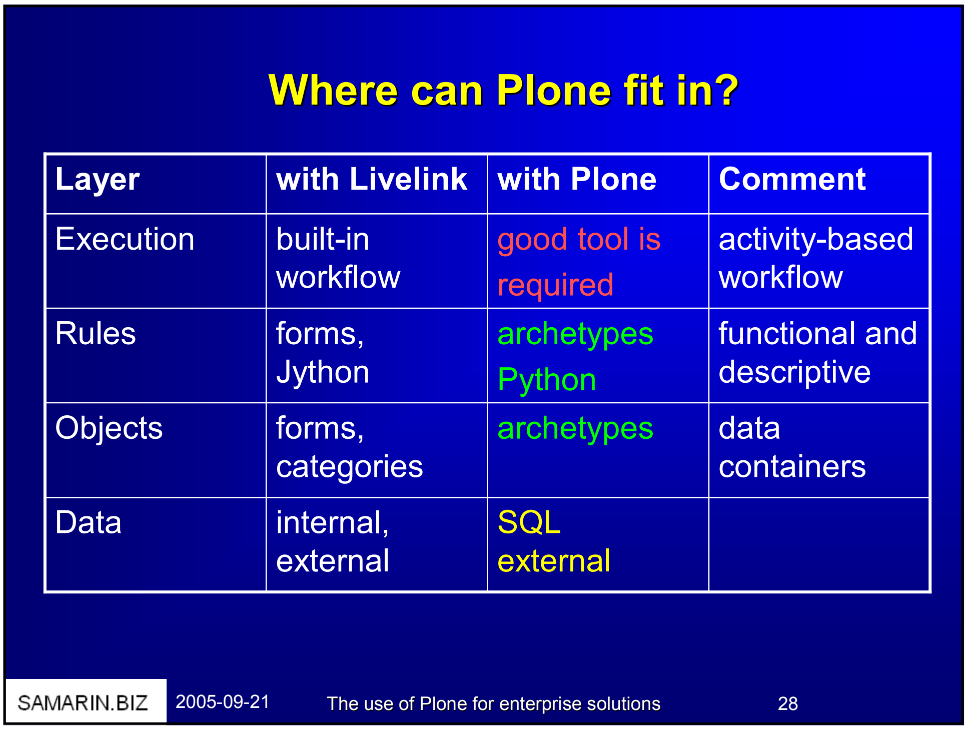
Data

repository repository repository repository



The simplified multi-layer model (2)

- It should not be confused with the n-tiers models
- Everything is a service (SOA is here)
- Each service may have
  - a presentation tier
  - an application tier
  - a storage/database tier
- Passive, active and proactive services
- Atomic and composite services



Where can Plone fit in?

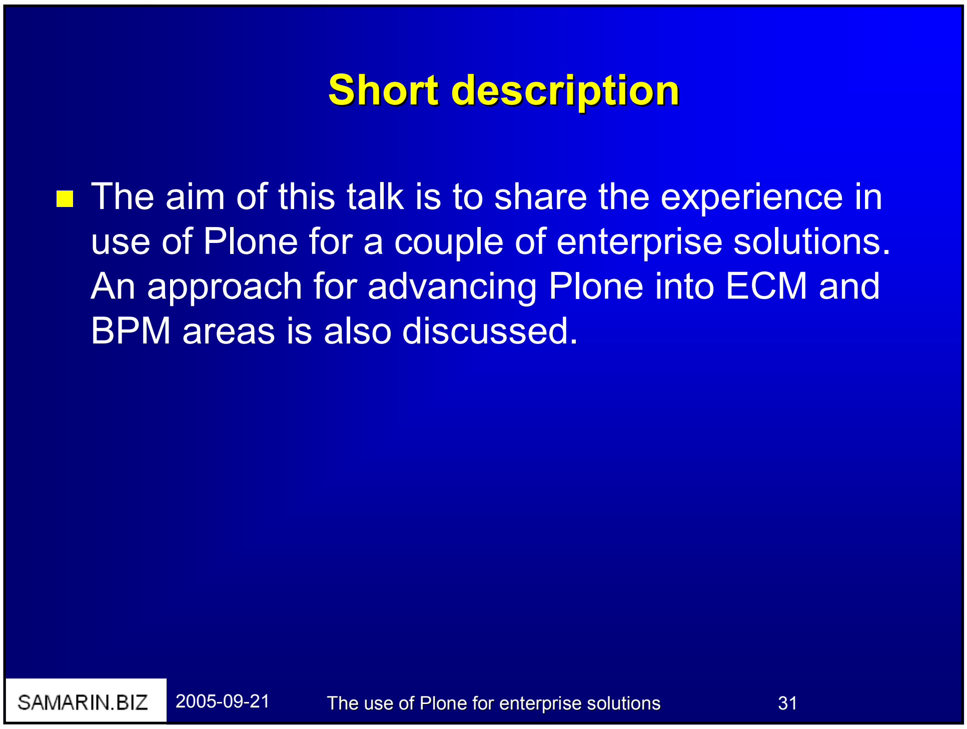
Layer	with Livelink	with Plone	Comment
Execution	built-in workflow	good tool is required	activity-based workflow
Rules	forms, Jython	archetypes Python	functional and descriptive
Objects	forms, categories	archetypes	data containers
Data	internal, external	SQL external	

Conclusions

- Plone can deliver enterprise solutions
- Document management needs enhancements
- An activity-based workflow is mandatory (embed or sub-contract a good tool)
- Plone API is mandatory
- There is need for a community-based “centre of excellence” for enterprise solutions or, even, SWAT teams
- Combining the architectural framework and Plone allows the move into the BPM market

THANK YOU

- Questions and answers



Short description

- The aim of this talk is to share the experience in use of Plone for a couple of enterprise solutions. An approach for advancing Plone into ECM and BPM areas is also discussed.