

CUPID: Implementing the IBM Rational Unified Process at PricewaterhouseCoopers

P05

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PRICEWATERHOUSECOOPERS 

 IVAR JACOBSON
INTERNATIONAL

IBM Rational Software Development Conference 2008

WHERE TEAMS ARE **R-HEROES**

IBM

Rational. software

Agenda

- In The Beginning
- Rollout Strategy
- Three Key Principles
- Rollout Lifecycle
- Project Engagement Process
- Marketing & Communication
- Process Asset Management
- Measurements and Governance
- Sustaining CUPID Practices
- The Tools we Used

The PwC LLP UK IT Territory...

- Approx. 450 UK IT staff...
 - Performing all standard RUP roles
 - Working across 2 main UK sites
 - Working on many concurrent “projects”
 - Interacting with international PwC territories & 3rd party suppliers



Background

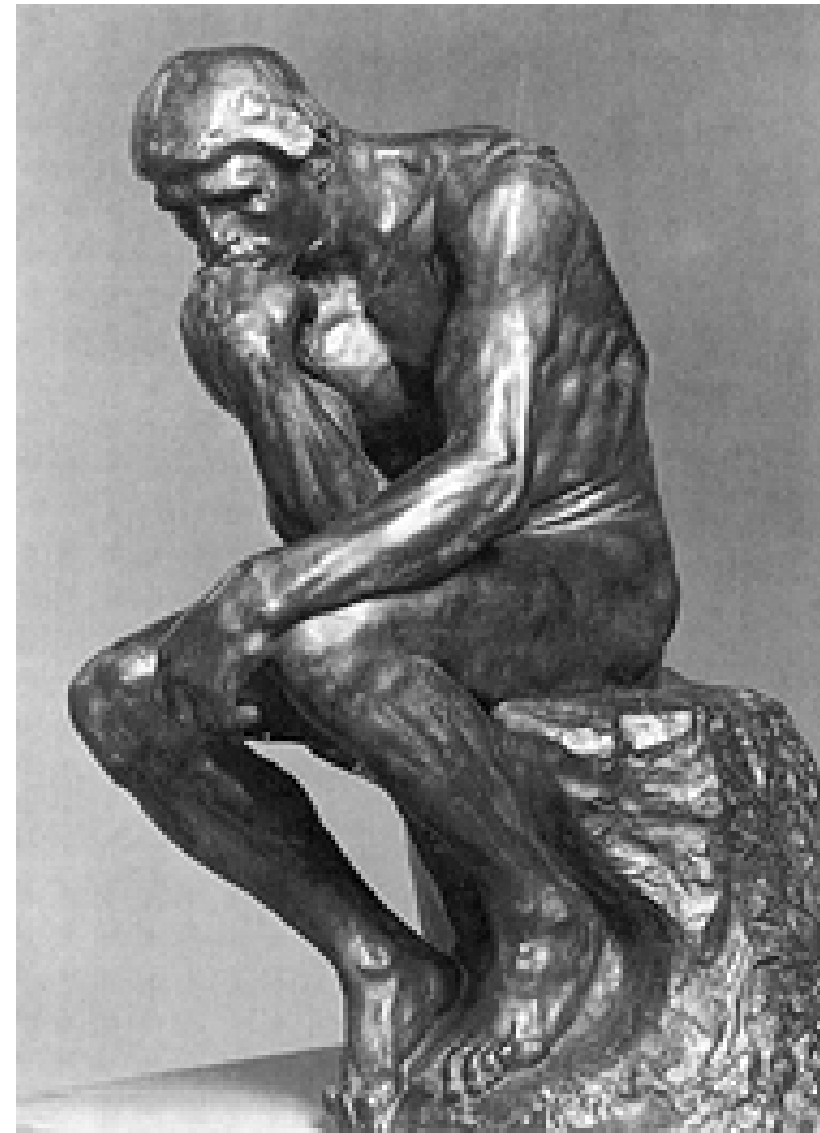
- In 2004 separate IT departments united to form one internal UK IT function
 - ▶ “One team, One standard of excellence”

- Industry standard methodology: RUP
 - ▶ Support geographically distributed development teams
 - ▶ New to most

- Enable UK IT to provide ‘value-added’ services, improving
 - ▶ Quality
 - ▶ Predictability
 - ▶ Standardisation

In The Beginning

- Challenges to capture a vision
- Lots of brainstorming
- Lots of stakeholders
- Where to start
- Lead by example
- Use RUP to Implement RUP
- Name for the project



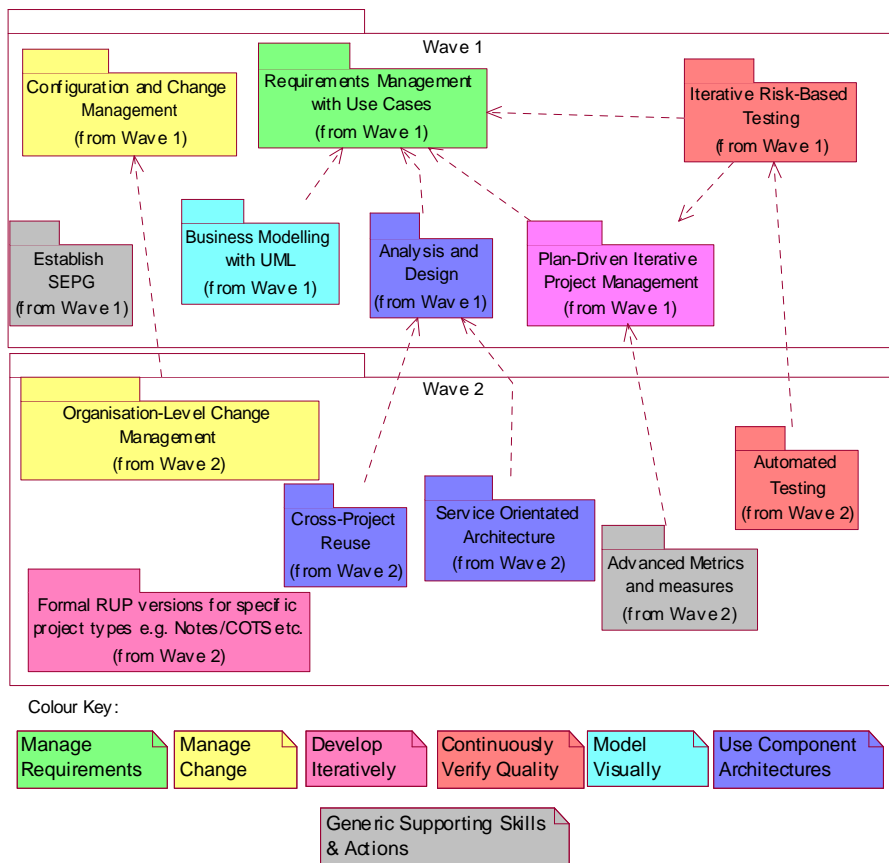
The Vision – 5 Objectives

- A common approach to all work
 - ▶ Implement RUP
- Industry standard best practice used by all
 - ▶ Implement RUP
- Capability of staff improved
 - ▶ Train & Mentor Staff
- A common toolset that supports the working practices
 - ▶ Implement IBM Rational Tools
- A mechanism for knowledge sharing and artifact re-use
 - ▶ Process Asset Repository



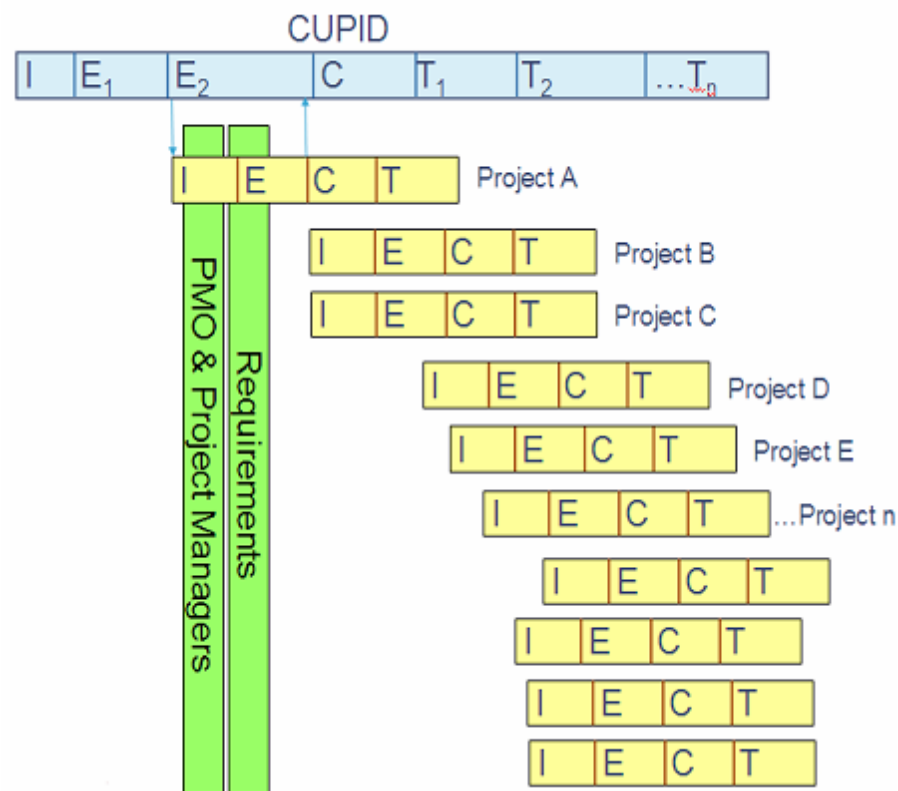
Roadmap

(13 “Practices”, Split Over 2 Waves)



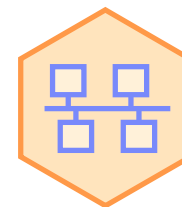
Wave 1 Strategy

(Accelerated Requirements with UC & Iterative PM. Others Project Based)

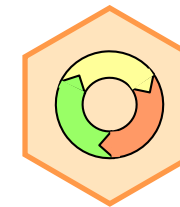


What did we mean by a practice?

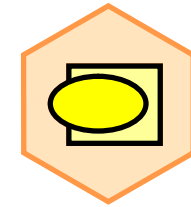
- Practices are end to end solutions to a particular aspect of software development
- Practices are the unit of deployment and adoption of process
- A process is formed by combining practices
- Practices must be verifiable and measurable
- Some examples of practices:



Architecture



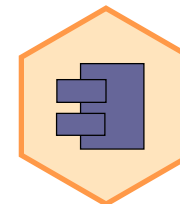
Iterative



Use Case



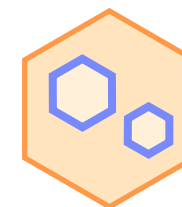
UP Lifecycle



Component



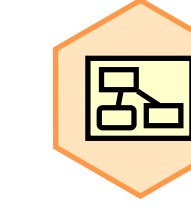
Product



Process

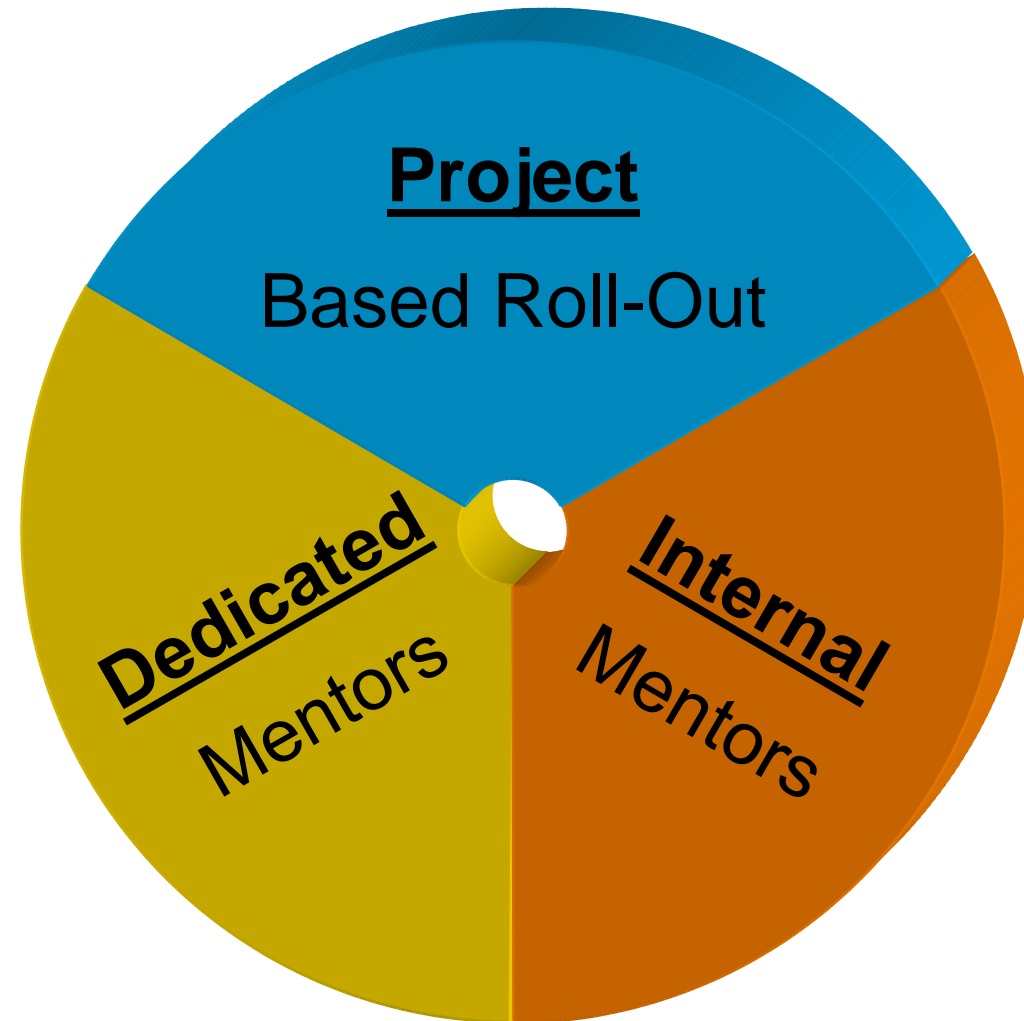


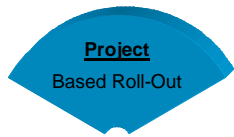
Team



Modeling

The Three Key Principles...





Why Principle 1: Project Based Roll-Out...



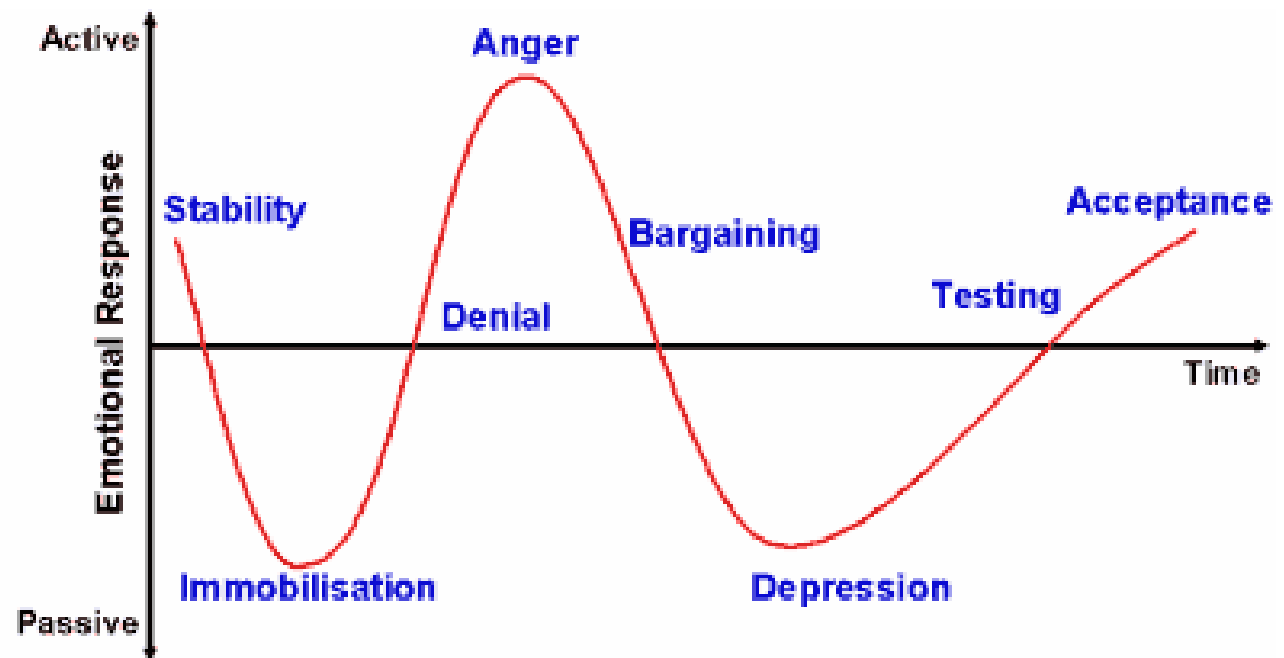
- What's *your* preferred learning approach?
 - ▶ Read a book?
 - ▶ Practice at home?
 - ▶ On a real-life project? **Winner!**

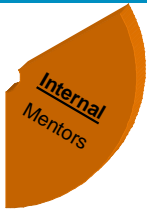


Why Principle 2: Dedicated Mentors...

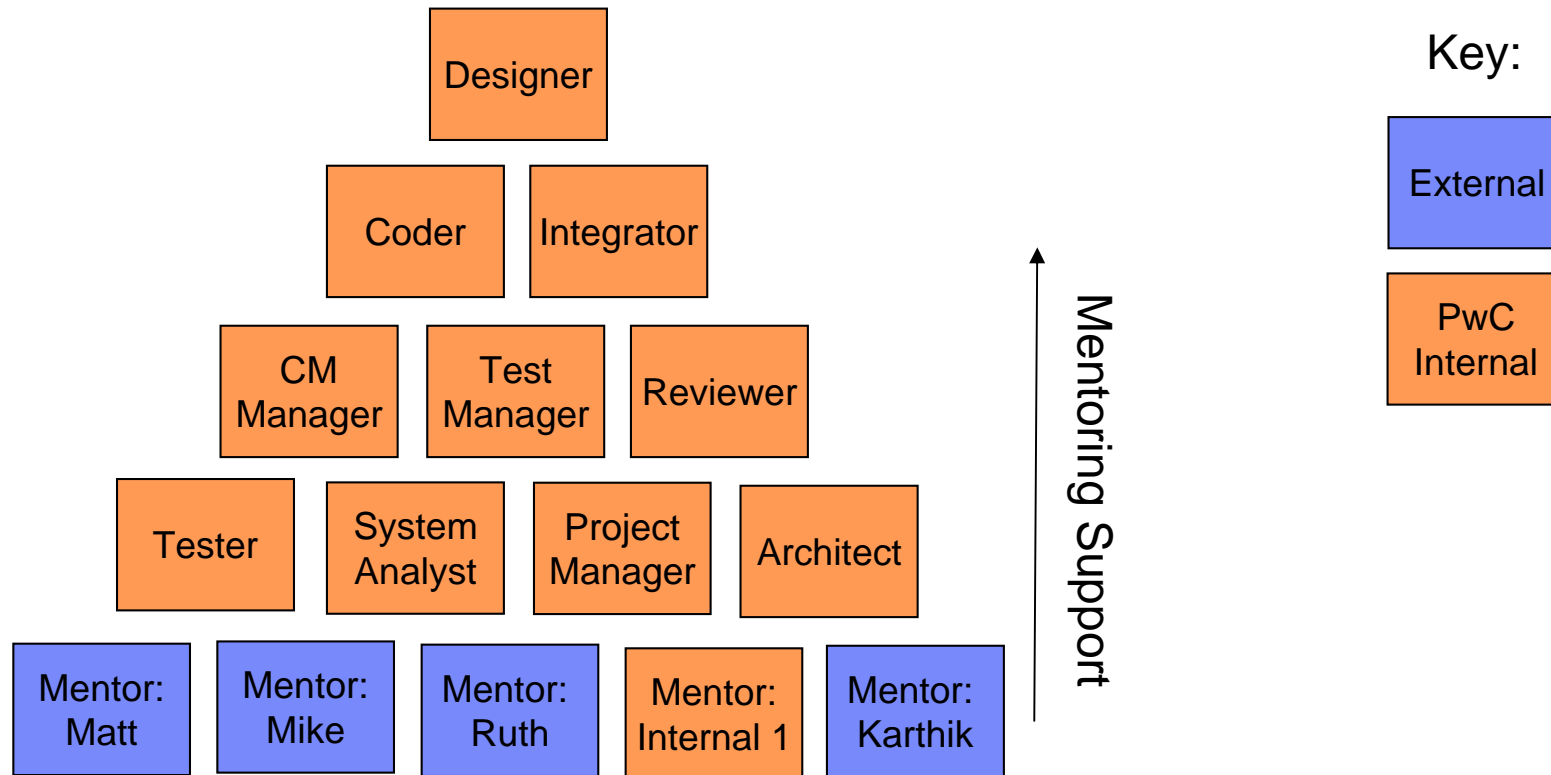
- Single point of contact across a number of projects
- Prevent problems rather than react to them
- Remain independent

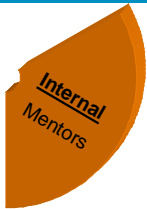
Multi-disciplined and multi-skilled mentors



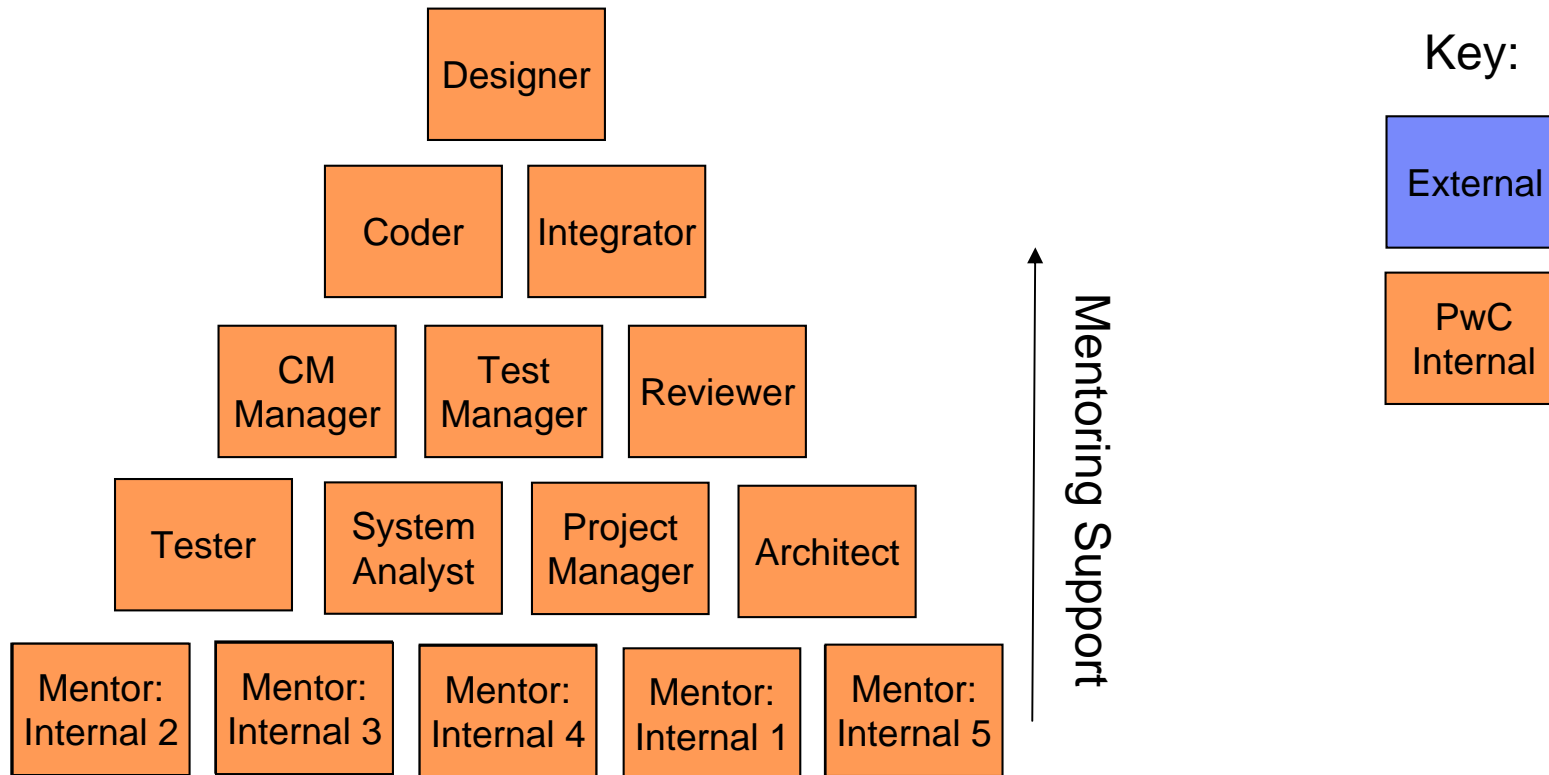


Why Principle 3: Internal Mentors...





Why Principle 3: Internal Mentors...

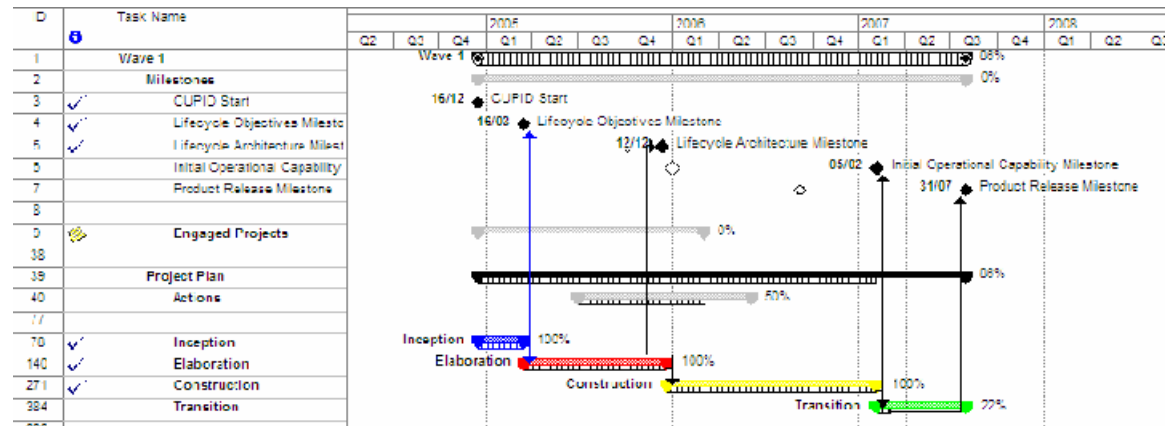


CUPID Lifecycle

- CUPID started in December 2004
 - ▶ Some understandable scepticism – more change!

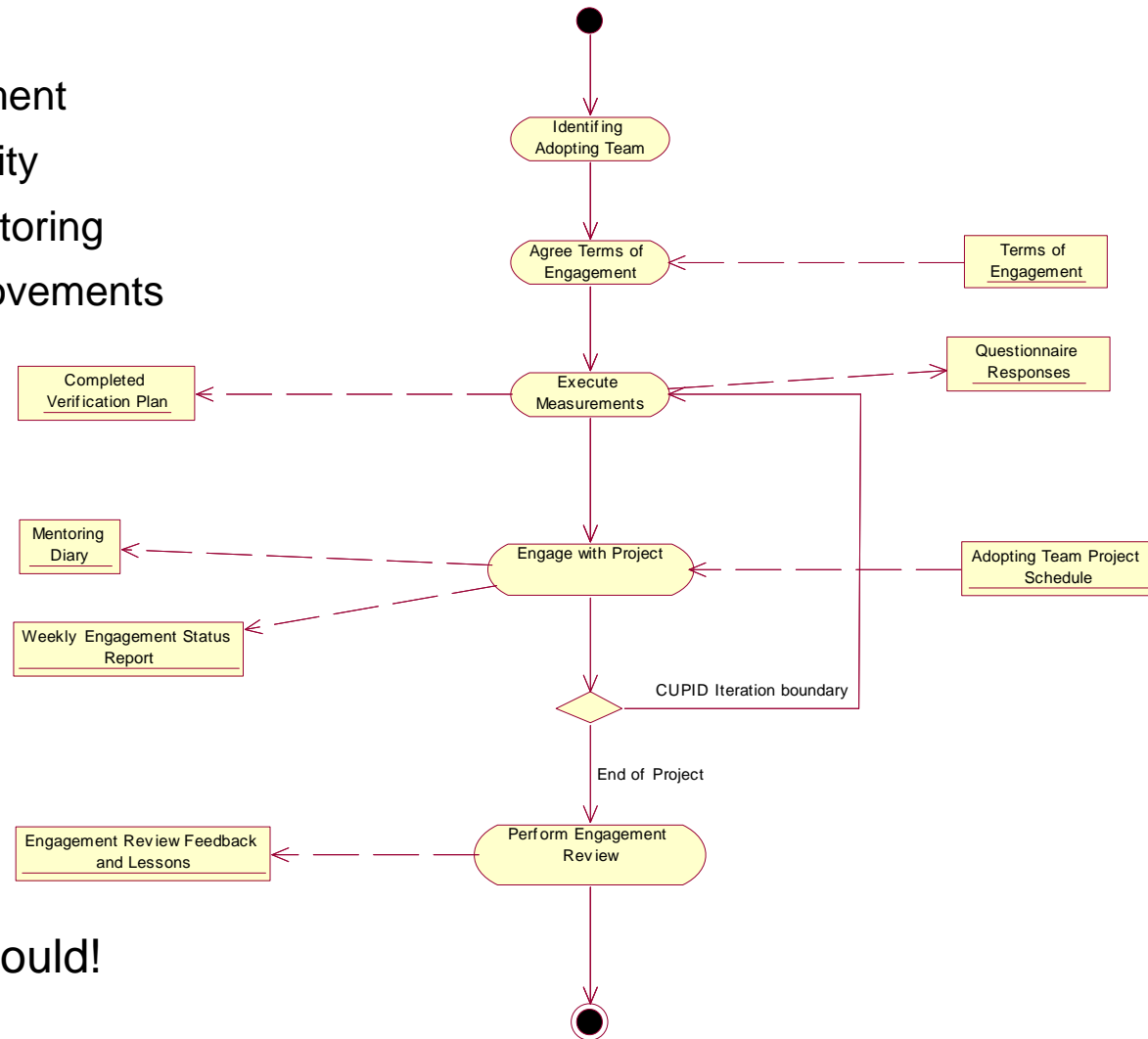
- Used the standard RUP phases
 - ▶ Inception, Elaboration, Construction, Transition

- Completed in June 2007
 - ▶ Original detractors now evangelists



Project Engagement Process

- Take 1 Project...*
- ▶ Agree Terms of Engagement
- ▶ Measure Current Capability
- ▶ Send for training, do mentoring
- ▶ Measure Capability Improvements



*We took every project we could!

Two Types of Training

Capability Uplift

- Diverse skill levels
 - ▶ ‘Hybrid’ resources
- Topics determined by practitioners
- “Lunch ‘n’ learn” sessions
- High take-up

Process Improvement

- External RUP-specific training
 - ▶ “Tested by me”
- Tailoring of “tired” courses
- Internal courses developed
- Just-in-time training

Deployed throughout the organisation

Marketing & Communication

- Seasonal Messages
- Wiki Site
- Steering Group/Project Board
- “Lunch ‘n’ learn” sessions
- Technical Work groups
- Group Inbox
- UK IT bulletin board
- Attendance at training courses
- CUPID on Tour
- Surgeries
- Phone Interviews
- Competitions

Seasons Greetings from the CUPID Team
 Linda, Regis, Ruth, Karthik, Mike M, Mike S, Matt, Jorge

CUPID Guide to Christmas

- Manage Requirements** – review your festive menu with your family and friends
- Model Visually** – draw a map for Santa to find your house
- Develop Iteratively** – do a little Christmas shopping every week
- Continuously Verify Quality** – taste each batch of mince pies you make

How will you contact CUPID today...?
CUPID (Capability Uplift and Process Improvement Deployment) ...
 Providing UK IT with training, support & advice for running successful projects using the Rational Unified Process and associated tools...
 ...Why not Invite a CUPID mentor to join your team today?

Use C
 M

Visit <http://rup.pwcentral.com>

Read the Fortnightly CUPID News (Posted on UK IT Exchange)

Come and Talk to us! (DL Level 3)

Attend a CUPID Lunch 'n' Learn (Held in Every Office)

Visit the 'UK IT Standards' Space on the Wiki

Email 'RUP Implementation'

Instructions

1. Cut out the shape above
2. Fold each internal edge
3. Glue each tab and make into a cube
4. Roll the Dice!

CUPID News

Part UK IT CUPID News

CUPID (Capability and Process Improvement Development)

What's new

1 Latest CUPID training schedule
Executive of Service Project Management
 8 Feb - London
 20 Feb - London
 19 Mar - London
Requirements Management with Use Cases
 27 Feb - London
 10 Mar - Manchester

Please contact Mike Savage to register for the above mentioned courses.

2 The best way to run team?
 In small projects - the way to get the whole team together for iteration assessments as the psychological change from one iteration to another is a good thing to undertake. However, as team sizes (or distribution) increase it may not be possible. In which case representatives for the whole team should be at the meeting and the whole team should be aware that the iteration assessment is about to take place.

Projects that have successful iteration assessments tend to have a solid iteration assessment with just the Project Manager and one or two others, to assist how close to filling targets the iteration is, and what work needs to be done before the formal assessment to complete the iteration.

While some find iteration assessments rather formal occasions they are one of the very process areas that - when done well - do help to improve team development, and the business benefits a project, within time when the context of a project evolves, defined by clear measurable goals and actual resources against those goals.

Real information that makes up part of an iteration assessment should be collected before the meeting (not on the spot), change request updates and - during the meeting the only discussion should be around individual items and possible corrective action in the result of formal or informally passed criteria.

The focus of iteration assessments should be forward feedback.

3 Why they're important
 Iteration assessment meetings are prior to the smooth running of an iteration lifecycle. This is for a number of reasons:

- They provide a formal mechanism for assessing the current iteration ensuring that the criteria have been met.
- They allow for a kick-off of the next iteration and communication of its goals and success criteria.
- They ensure that all team members know of the iteration change and therefore ensure that everyone knows what iteration they are currently in.

4 The Result
 A successful iteration assessment is one that either clearly passes or fails, but even a conditional pass is a successful result if the conditions are clearly defined and entered.

Iteration assessments aren't about 'fiddling around' where people spend precious quality time for the project and ensuring that feedback is gathered on quality, defined criteria, changes, risk, resources etc.

5 What's helping hand with your End of Iteration Assessment Criteria?
 Do you have that every new Visual SourceSafe repository comes with a predefined set of iteration assessment criteria to use for phase of RUP?

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CUPID Times

Iteration Assessments
 by Mike MacDonagh

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Rational User Group
 by Julian Holmes

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Process Asset Management

- Process Asset Repository
 - ▶ A Single Source for Guidelines, Templates and Examples

- Change Control Board
 - ▶ Change Requests submitted by the CUPID Team and Practitioners
 - ▶ Reviewed Every 2 Weeks

- Publishing the Assets
 - ▶ Tools templates provision
 - ▶ Common File Share
 - ▶ CUPID Wiki

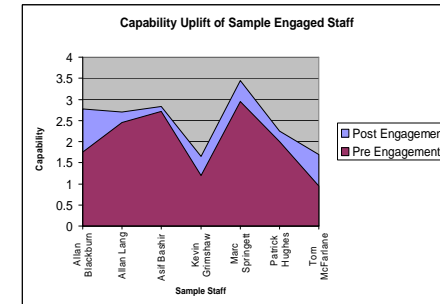


Measurements and Governance

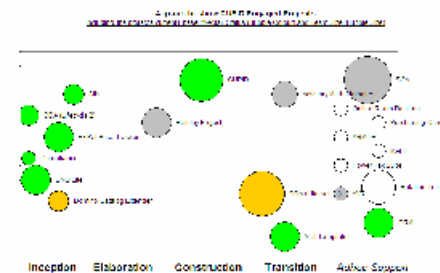
- Individual Level
 - ▶ Self Assessment Questionnaires
 - ▶ RUP Quiz

- Adopting Project Level
 - ▶ Engagement Reports (every two weeks)
 - ▶ Verification Plans (every CUPID iteration)

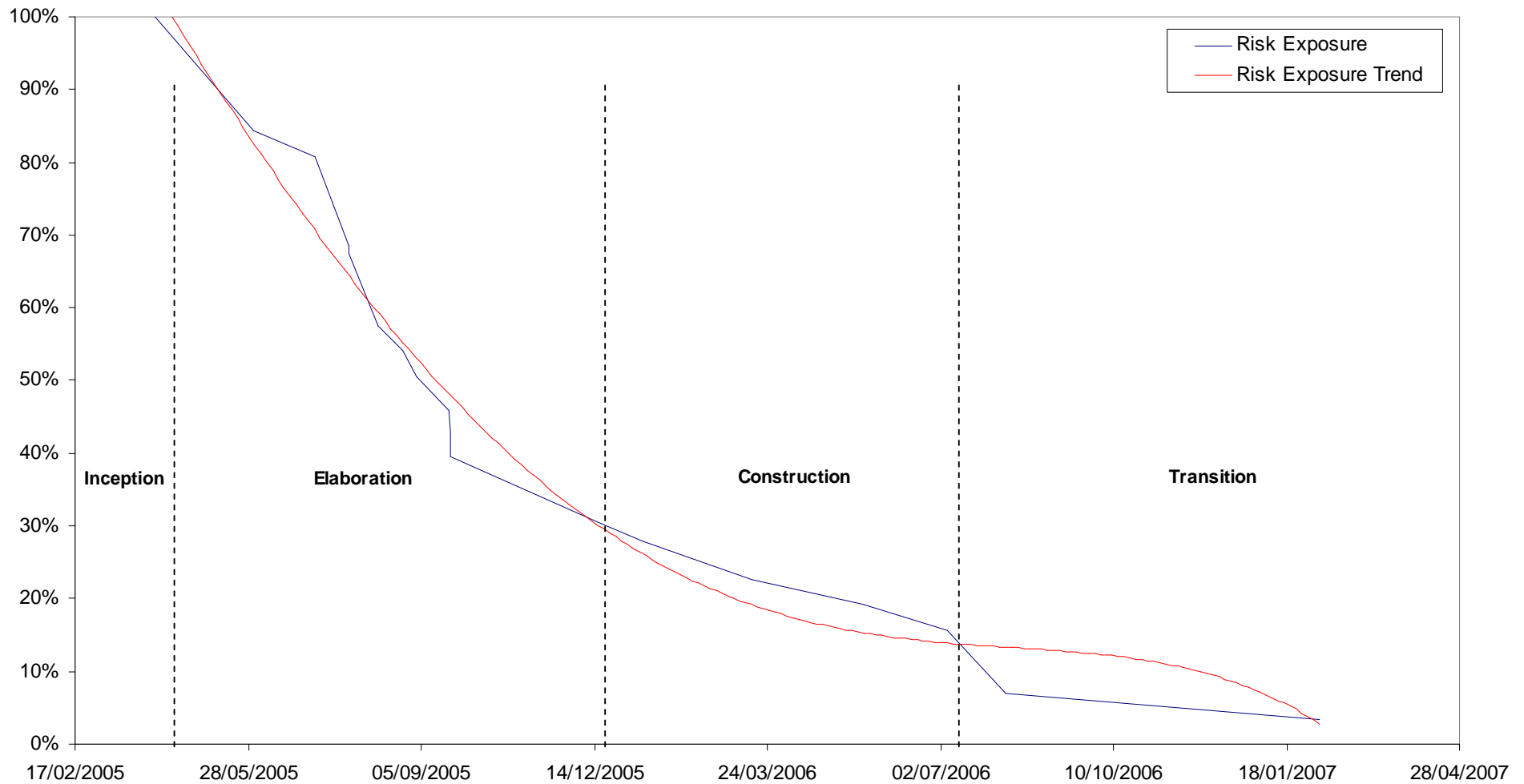
- CUPID Project Level
 - ▶ Training Data
 - ▶ Engaged Projects Bubble Chart
 - ▶ Risk Exposure



Project	Phase	Start Date	End Date	Project Manager	Project Sponsor	Project Status	Project Risk	Project Health
Project A	Inception	2008-01-01	2008-01-15	John Doe	Jane Smith	On Track	Low	Green
Project B	Elaboration	2008-02-01	2008-02-15	John Doe	Jane Smith	At Risk	Medium	Yellow
Project C	Construction	2008-03-01	2008-03-15	John Doe	Jane Smith	Delayed	High	Red
Project D	Transition	2008-04-01	2008-04-15	John Doe	Jane Smith	Completed	Low	Green
Project E	Advice Support	2008-05-01	2008-05-15	John Doe	Jane Smith	Completed	Low	Green

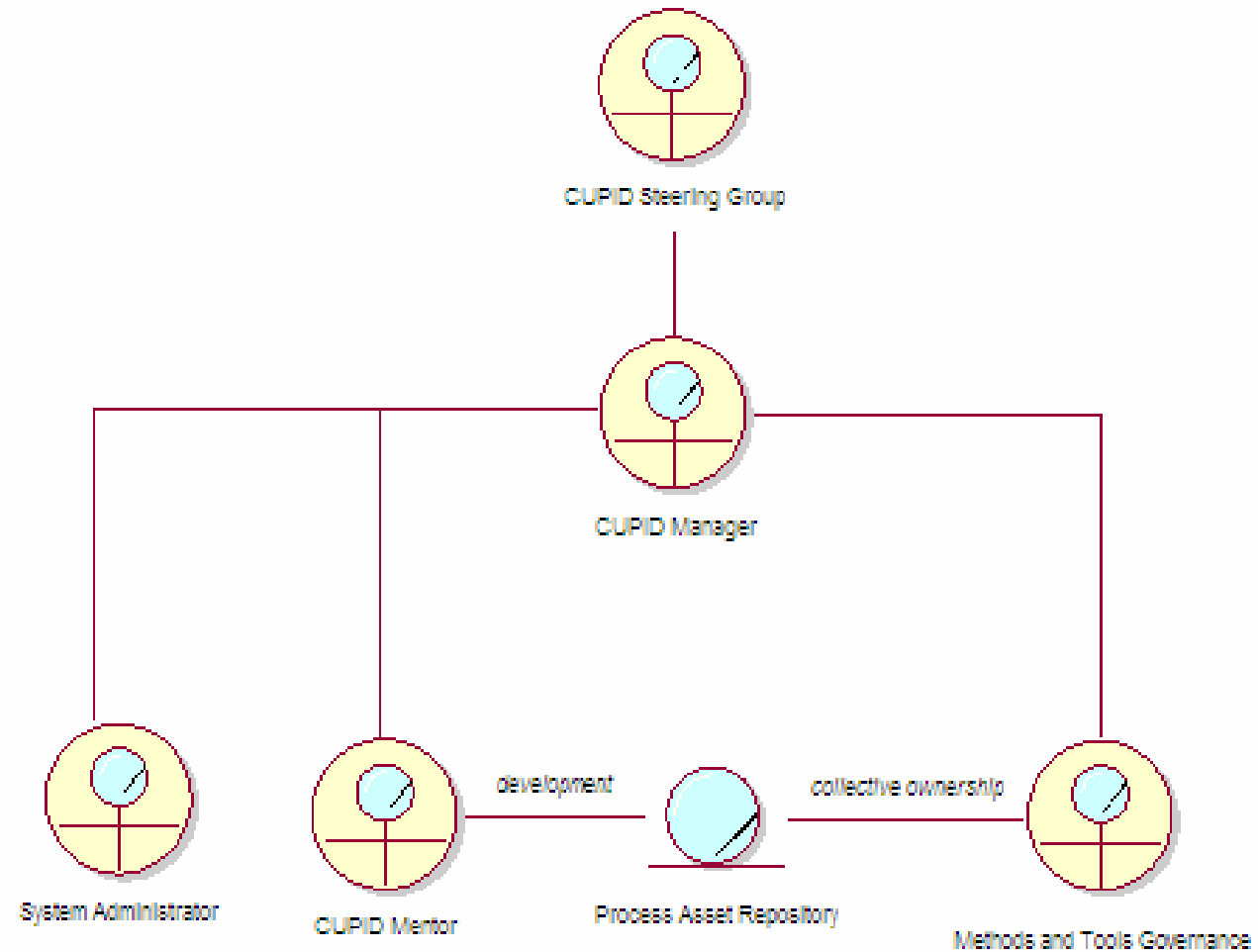


Measuring our rollout Risk Exposure



Sustaining CUPID Practices

- CUPID now has three areas of focus:
 - ▶ Adopt
 - ▶ Sustain
 - ▶ Mature



Tools Background

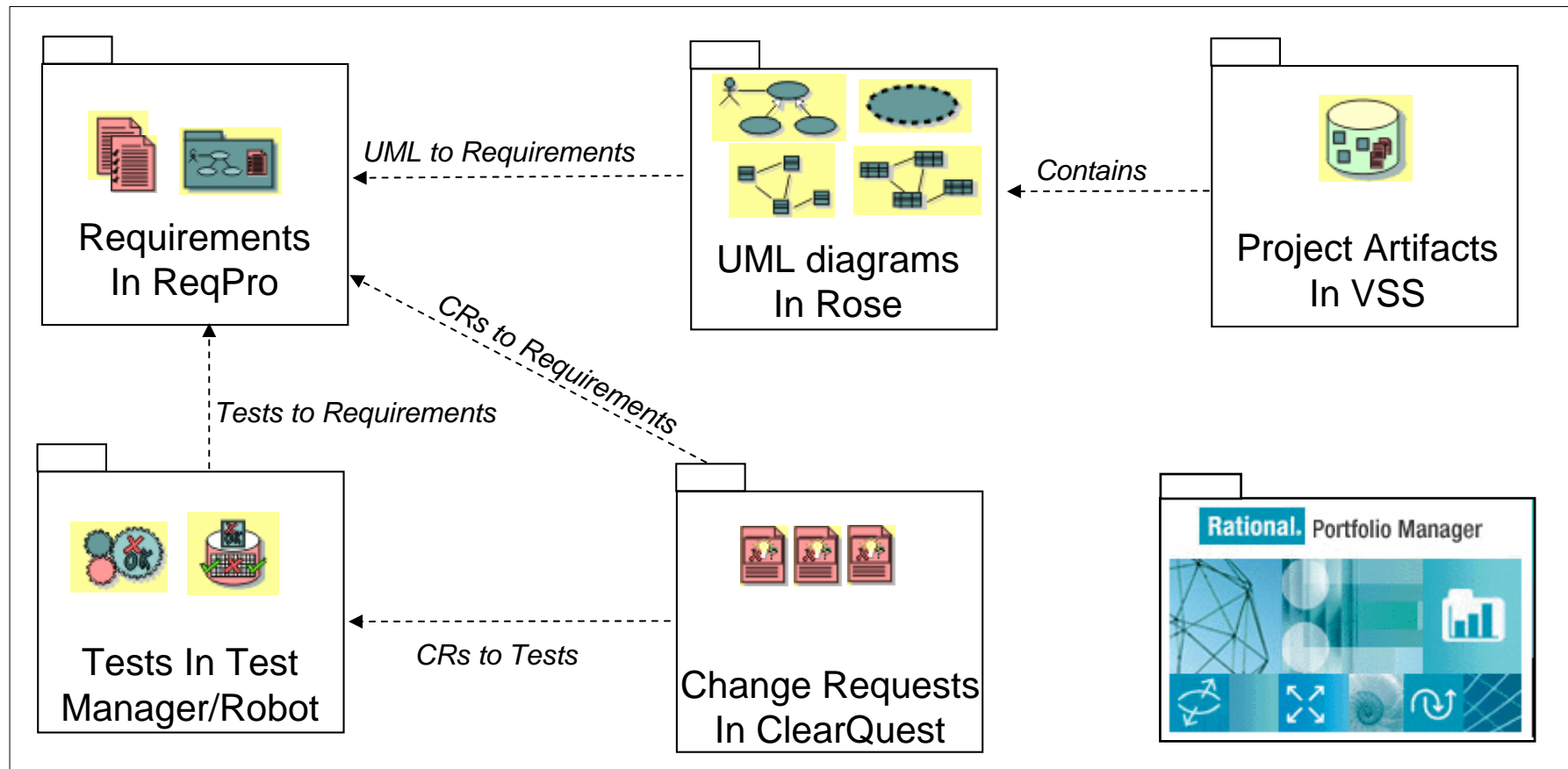
- CUPID is a Practice-Led Rollout
 - ▶ Tools *support* the practices

- Complex Infrastructure
 - ▶ 2 UK IT Offices and external/offshore suppliers

- Tools Support and Administration
 - ▶ Dedicated Tools Specialist & Administration
 - ▶ Central IT Help-Desk Collaboration

The Tools we introduced

All Geographically Distributed




How to be Successful

- Strong internal Project Manager with drive and commitment
 - ▶ Support from Senior team

- Measure the “before”, “during” and “after” states
 - ▶ Proof of success at every stage

- Ensure technical experts are balanced by ‘People People’
 - ▶ Treat individuals as individuals

- Create a team of superheroes 

Communicate!

CUPID: An alternative definition

Communication

Understanding

Practice-led
rollout

Iteration

Dedication





QUESTIONS



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