Case History

How a Strong and Principled PPQA Overcomes Acute Challenges to Process Improvement

UK Life

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Introduction to Aviva

- The Aviva Group is the world's fifth-largest insurance group and the largest insurance company in the United Kingdom, with 54,000 employees serving 53 million customers world wide

- Aviva achieved its growth through acquisitions and mergers

- This created an organisation with complex IT legacy systems that needed to be integrated, across disparate process cultures and 5 different locations

- Projects under pressure to deliver with a complexity of systems to link together

- UK Life £100M+ change portfolio

- The Vision in 2004 was "confident, predictable delivery"

- The FSA regulator body told Ian Butterworth our UK Life IT Director he was "presiding over the worst legacy system problem in UK Financial Services"

Worst IT legacy problem in Europe."

Issues

- Widespread suspicion of process

- No record of success in organisation process maturity, previous attempts to introduce process maturity were of limited success

- Naive approach to process deployment, expecting published processes to be followed instinctively

- Meeting delivery dates valued more than project process quality, despite the cost of fixing defects

- Inexperienced sponsors

- Fire fighters rewarded

- Few process or quality skills in the organisation

- Outsource taking place

you may think process will never work in your company or culture, and we had that feeling…

Programme of transformation

AVIVA

In 2004, UK Life chose IBM as its partner to implement its improvement strategy in a three year transformation programme

- Deploying over 100 IBM change agents

- Level 3 processes created with IBM's assistance

- Started CMMI journey in 2004 with senior sponsors targeting Maturity Level 2 by end 2005 and Level 3 by 2006

- Target later set as Capability Level 3 for 11 core processes by 2006

Experts to build the perfect process

CMMI Assessments
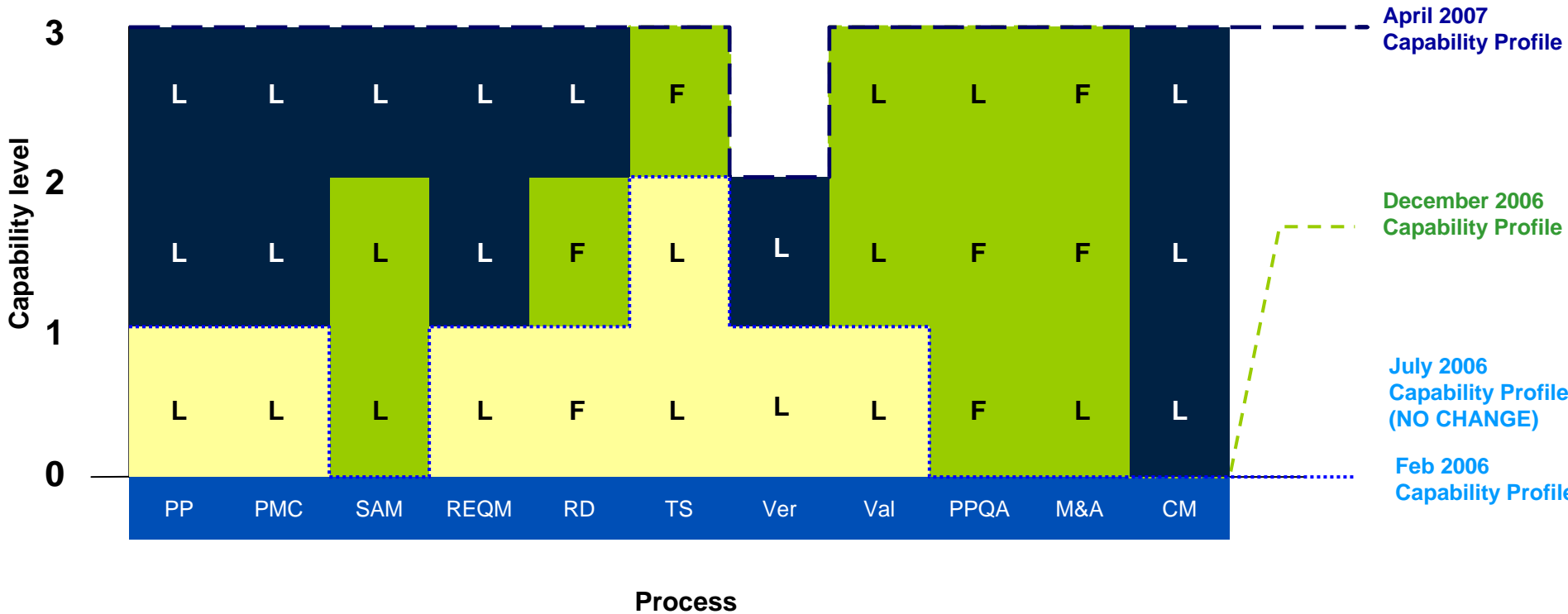
Transformation stages

- Up to 2006, there was no independent QA function in place and UK Life had stalled between Level 0 and Level 1

- Early 2006 - In the nine months following the introduction of the PPQA team the PPQA process went from 'non-existent' to CMMI Level 3

- Within the next six months a strong and principled PPQA helped nine process areas achieve CMMI Level 3 in April 2007

How did this turnaround happen?

Quotes from Dec 2006 CMMI assessment

"Culture of quality assurance and defect prevention (rather than fail and blame) is becoming established, driven by a strong and principled quality group."

"PPQA group activity and profile have ramped up substantially over recent months, and their approach is consultative and consistent. This is seen to add value and is welcomed by participants."

Derek Glen – Compita, Lead Assessor

It's how we work with people to improve process, not a tick box exercise

Recognise people have difficulty with process

- projects will struggle with a new process

- too much process

- where is my old process?

Listening

- Someone needs to listen to why a project is different

- Someone needs to listen to why the process is not working for them

- Someone needs to listen to what is broken

PPQA listening

- **Initial contact** - stress to the project manager that PPQA is here to **listen** to the project in confidence, to capture its experience and quantify compliance

- **Open interview** - Introduce the audit as a way to **listen,** putting interviewees at ease

- **First question** - ask about difficulties the team experienced when using the processes and if it was "good fit" for their project. Ask about deficiencies and also which aspects of the process were valuable

- **Focus on them** - review a small sample of documents for orientation before the interview; but ask for evidence after the interview. The focus should be on the project to tell you what they do

- **Help** - if interviewee appears hesitant, reinforce our policy on **listening** to elicit feedback

- **Closure** - ask if the project would like to comment on process strengths and weaknesses

Collaboration - an auditor should record process strengths and weaknesses

PPQA is the hub of communication

Listening

   • PPQA is the hub of two way communication between process and projects
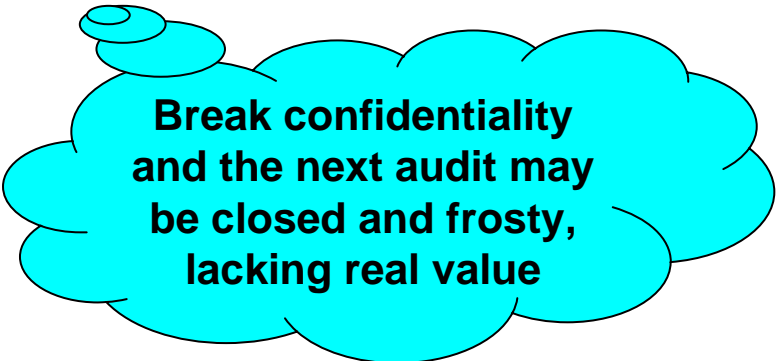
Action

   • Use the insight from the projects to provide improvement opportunities to the process owners

Listen and then show them we have listened

Open and safe communication

- PPQA team needs to be strong and strictly observe confidentiality with projects

- Projects need confidence in this in order for them to be open about their experiences of process

- Senior managers may revert to a blame culture, asking for identification of projects not following process

- We are unable to give names, however we would be pleased to identify those that are skillfully following process

Break confidentiality and the next audit may be closed and frosty, lacking real value

Culture change, reward the good guys

Projects too important to audit

AVIVA

Challenge projects that consider themselves "too important to audit"

• Our aim is to make the process work, especially for key, high risk projects

• We want to learn from high pressure projects

• As it's high risk and under pressure, we can check the critical processes such as risk management

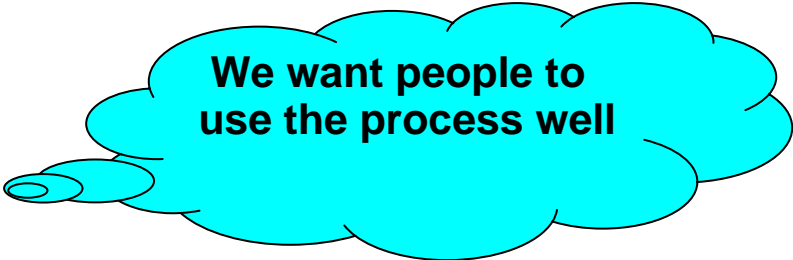• Tailoring; we can check you have not over engineered your processes

If we only audit standard projects the culture will not change

PPQA aims higher than mediocrity

A tick box approach to quality assurance leads to mediocrity:

- If we only stressed errors the end result would be at best, an attempt to do standard error-free work

- This accomplishment would not be *bad,* but there is a better way

- Highlight success to reinforce behaviour that is effective and desirable

- If excellence is actively reinforced and errors are just simply noted, people will focus on excellence and tend to diminish errors

- Catch them doing something right and let them know it

We want people to use the process well

PPQA auditors

We established a team of 40+ PPQA auditors, committed to 8 audits per year

- PPQA auditors are drawn from different process backgrounds

- PPQA auditors become process champions in their day jobs

Remove the fear of auditing

AVIVA

We make the audit process 'comfortable' for the PPQA auditors, with classroom training to boost their confidence

Do	Don't
listen to what projects are saying	give subjective evaluations
probe persistently, until an unambiguous answer is obtained	need to be expert in the process being audited
identify deficiencies without blame	be confrontational about non conformance

PPQA auditors to be catalysts for open communication

PPQA auditors buddy system

- After being buddied through the first audit, many people find that it was a less intimidating experience than expected

- Conversely, trainees who started by observing an audit first, felt they were not capable of auditing and dropped out

PPQA auditors develop into "process people"

PPQA auditors are focused on changing the culture to use process across the board, not experts on a single process

PPQA auditors become "process people";

• Who understand that realising a process happens when the user's actions echo the written words

• Who understand the need to move and refine both people and process to work in harmony
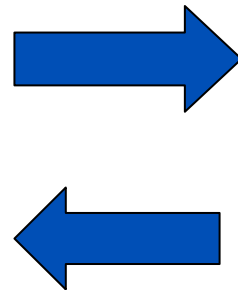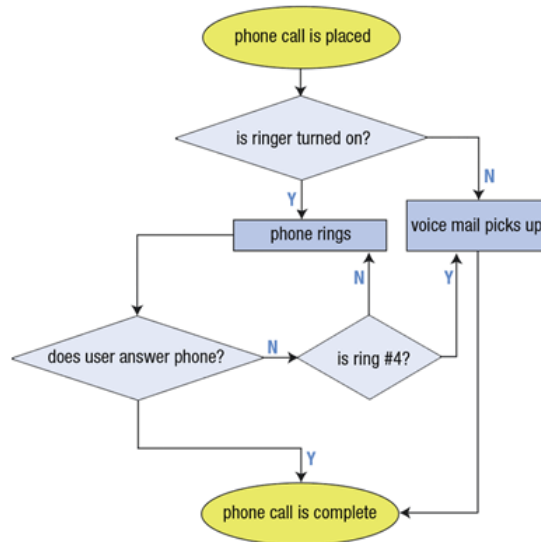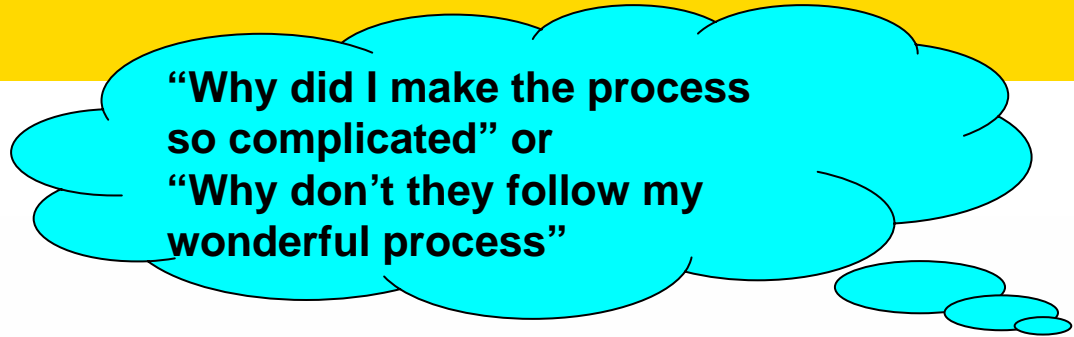
Make sure PPQA is working well

- How many PPQA audits are completed on schedule?

- How many PPQA non conformances are closed on time?

- Non conformance trends, look beyond the numbers

- Quality Assurance Dashboard

Dashboard example

"Why did I make the process so complicated" or "Why don't they follow my wonderful process"

Processes & Capability Level

|	Level	1	2	3	Conformance RAG	Risk to CMMI level 3 Conformance	Process Owner
CMMI Level 3 Processes	PP	G	G	G	AMBER	Two areas that show a wider weakness are: -Need to make more and structured use of historical data for estimating. -Data Management not well understood and is still an area of weakness. Without good quality project management the risk of projects failing is greatly increased.	Snow White
	PMC	G	G	G	AMBER	Data Management not well understood and is still an area of weakness.	Snow White

Dashboard example

Summary:

The CMMI assessment in April has found the position of processes audited (REQM, SAM, Ver and M&A) has generally improved from last year with an 80% increase in 'Fully' ratings. The areas of weakness we were aware of through our PPQA auditing and are also understood by practitioners and process owners.

PPQA Metrics　　　　　　　　　　　　　　　　Flag Carriers

Mean NCRs Per Audit
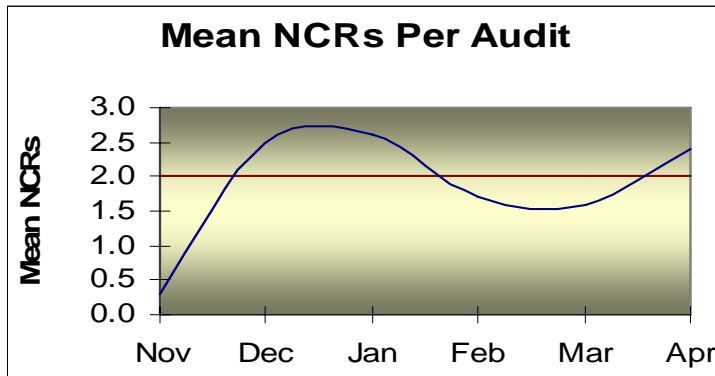
Project B10212 - Project Charter exemplar
Project B20318 - Tailoring

Non Compliance Records (NCR) Analysis
Mean NCR level has risen slightly in April. Sampling is mainly from the Disneyland business area this month.

insightful communication

Embedded processes

Rigour of the PPQA checklist questions coupled with the timely closure of non compliance records has enabled PPQA audits to be submitted as evidence for Governance audits in 2009.

CMMI Class A assessment in Oct 2009 demonstrated embedded processes across the organisation, with 14 process areas now at Capability Level 3.
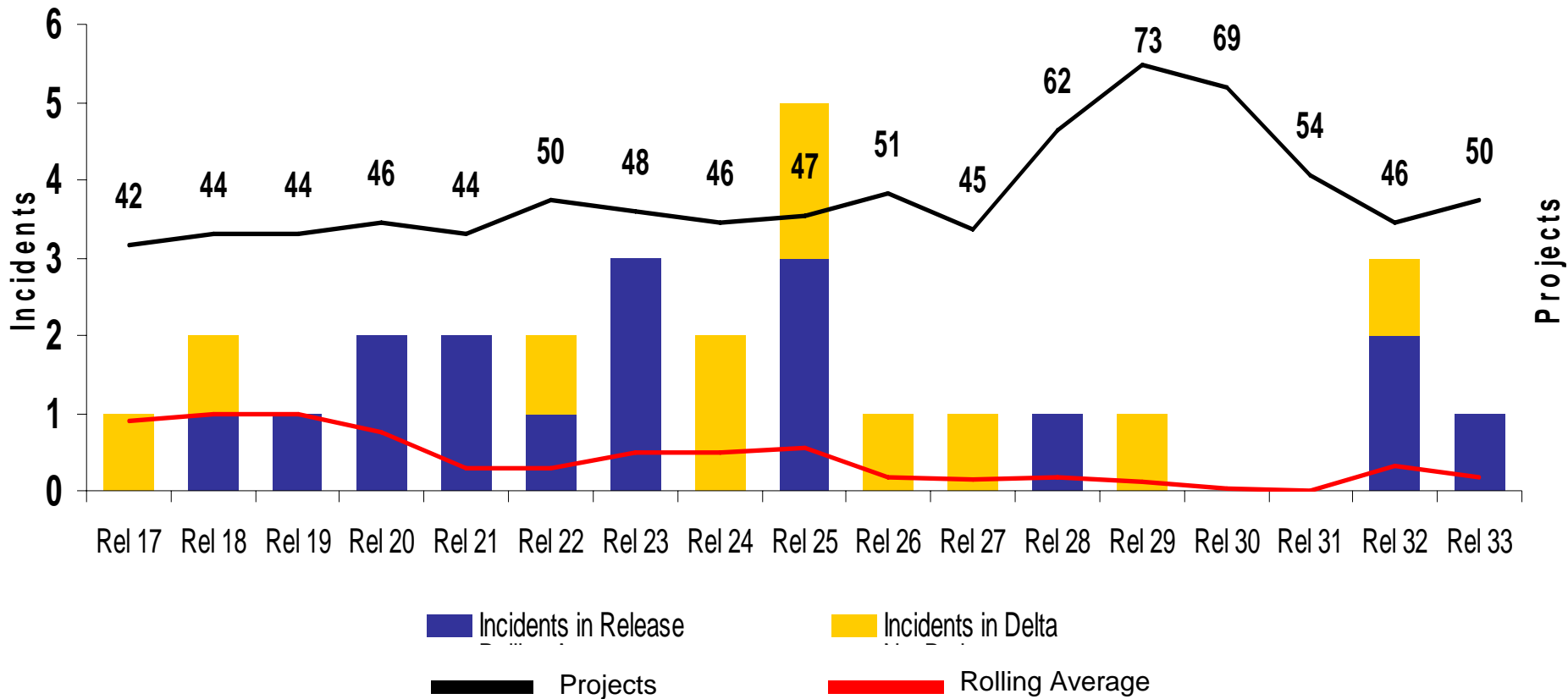
Service stability

Sev 1 and 2 Hours Lost
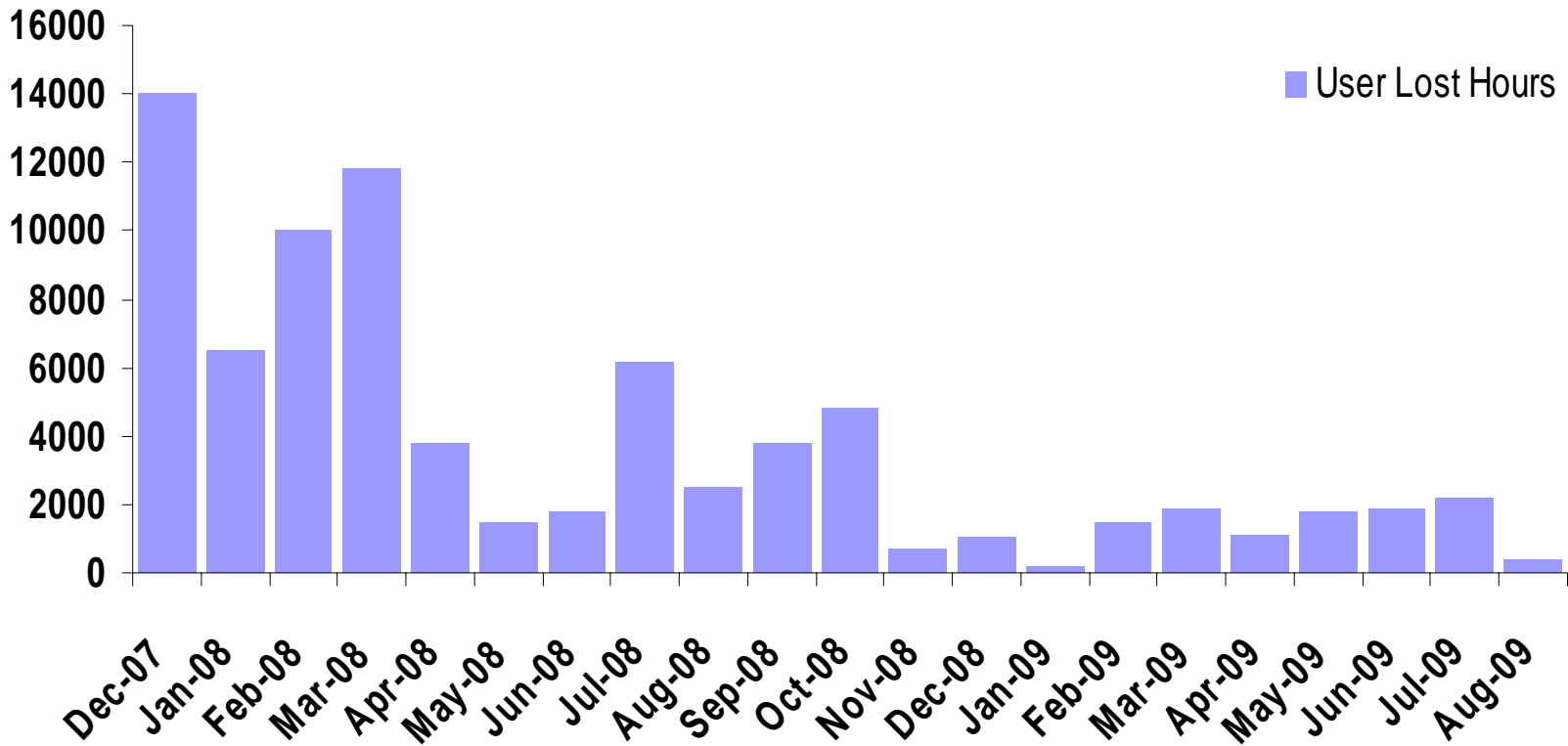
Quality of change delivery

High impact incidents as a result of a release

Customer satisfaction

Percentage of internal customers happy with performance

April 2008	68%
Oct 2008	71%
Oct 2009	85.2%

Ease of delivery

	Projects On Time	To Cost
2007	48%	46%
2008	75%	68%
2009	82%	70%

What next for UK Life?

- Continued investment with 11 full time employees committed to process improvement and QA

- CMMI Class B assessment of 20 processes from CMM-SVC spanning 3 organisational units

- UK Life-wide belief that CMMI works and we'll stick to it

"This is how we do things around here"

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