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Joke Hettema
Een brug te ver? Uitdagingen van gedistribueerd agile testen
Najaarsevent TestNet: 22 september 2009

Samenvatting

Planon develops a standard software suite and has adapted Scrum four years ago. To extend its software development capacity, Planon has recruited new staff in Hyderabad, India. Currently, seven out of nine teams are working in a distributed manner, i.e. one or more team members are located in India. The split is straight down the middle, not role-based. On average, half of the developers and testers are located in the Netherlands, and the other half is located in India.

Most challenges apply to the whole team, but some apply to the testers in particular. In India, the hierarchy in software development is much stronger, where the testers usually are at the bottom. Communication lines are long, with a lot of managers in between the developer and the tester. In our Scrum teams, all members are equal and the team manages itself. For our new Indian colleagues, that proved to be quite a "culture shock".

We covered this issue while recruiting Indian testers; we assessed the candidates' ability to adjust to our way of working. After a first selection (primarily focused on language), the candidates participated in a hands-on workshop with practical cases, which uncovered their communication and teamwork skills. Planon now employs eleven Indian testers.

Distributed testing also has logistical challenges: our nightly and continuous build processes provide the tester with new software versions regularly, but getting that software quickly to the other side of the world is difficult.

Biografie

Joke Hettema (39) studied Biology at the Groningen University. She switched to working in ICT in 1995 and worked as test engineer, test coordinator and test manager in many projects and businesses. Currently working at Planon BV as an Agile Tester and Scrum Master, Joke is continuously involved in innovating and improving the agile test process. Joke is ISTQB certified Test Practitioner and certified Scrum Master.

Slide 1

A Bridge too far?

Challenges in distributed agile testing

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INTEGRATED WORKPLACE MANAGEMENT SOLUTION

Slide 2

Agenda

Green Workplace Economics

Introduction

The India project

Current situation

Cultural challenges
- hierarchy
- communication lines
- recruitment

Logistical challenges
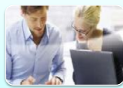- communication
- software / tools
- meetings

Conclusion

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About Planon

Green Workplace Economics

Planon is the leading global real estate and facility management software provider of Integrated Workplace Management Solutions (IWMS).

Over 1,300 customers in 16 countries: Governments, Banking, Education, etc.

Founded 25 years ago
320 employees
more info at www.planon-fm.com

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Slide 4

About me

Green Workplace Economics

Graduated in Biology

Switched to ICT in 1995

Worked in several, mainly test-related roles

Started in 2005 as Agile Tester at Planon
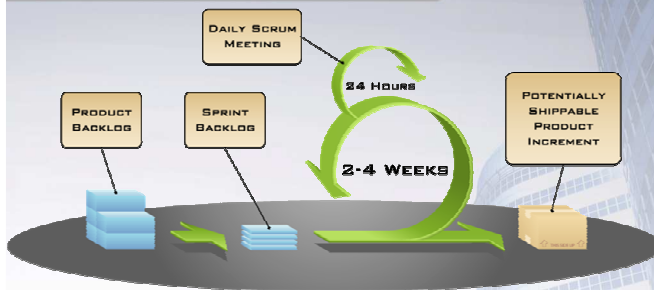
Setting up the agile test process within Scrum

Since 2008 also Scrum Master

Certified ISTQB Practitioner

Certified Scrum Master

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Slide 5

Scrum at Planon

Green Workplace Economics

Daily Scrum Meeting

24 Hours

Product Backlog

Sprint Backlog

2-4 Weeks

Potentially Shippable Product Increment

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Slide 6

The India project

Green Workplace Economics

Increase software development capacity significantly and quickly

At acceptable costs

Partnership with CoMakeIT (Hyderabad)

CoMakeIT provides the facilities; operations managed by Planon

coMakeIT
offshore development partner

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Current situation

JavaClient & Web2Client	WindowsClient, Talk and SelfService	SelfService 2.0	Development Support
Atlas	Sigma	Beta	DS
Epsilon			
Galaxy			
Omega			
Psi			

Average team composition

Functional designer — Developer — Developer — Developer — Developer — Tester — Scrum Master — Tester — Technical writer

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Distributed setup

Functional designer — Developer — Developer — Tester (India)

Scrum Master — Tester — Developer — Developer (Netherlands)
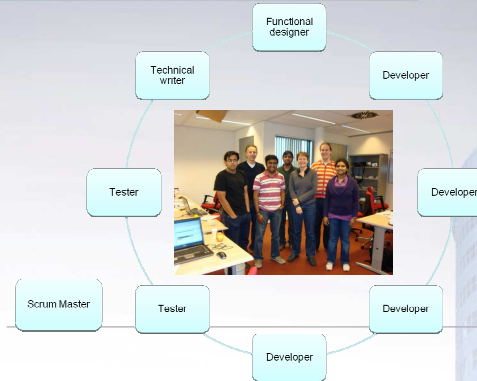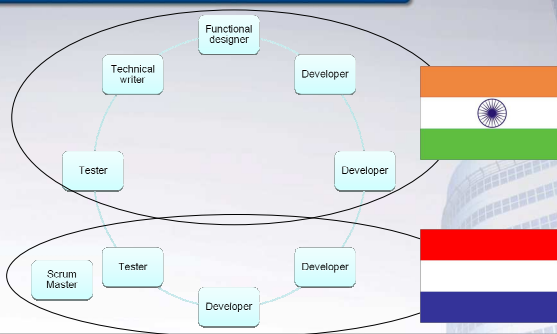
Cultural challenges

Hierarchy

Remember, when we testers were at the bottom…?

In most Indian companies, this is still the case

Relations between men and women are different

But in a Planon scrum team:

- all team members are equal
- the team manages itself (facilitated by scrum master)
- the tester points out the bugs to the developer
- everybody supports each other with their tasks

Hierarchy: challenges

How to involve Indian testers

How to make them behave pro-actively

How to get them to participate actively:

- Sprint preparation
- Sprint planning
- During sprint
- Retrospective meetings (scrum team + test team)

How to make a tester feel free to point out bugs to a developer (even if tester is a woman)

Slide 1

Hierarchy: how to overcome the challenges

Green Workplace Economics

- Coaching (individually and in teams)
- Allow some things go wrong, and let them fix it
- Facilitate them in this by providing tools
- Coaching Dutch team members
- Team building (during introduction perdiod)
- Sending Dutch team members to India
- Give them confidence and responsibility
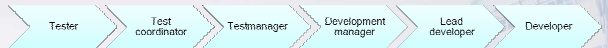- Avoid having a demand – supply relationship

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Communication lines

Green Workplace Economics

This is not an uncommon process in a traditional project:

When a bug is reported:

Tester → Test coordinator → Testmanager → Development manager → Lead developer → Developer

When a bug is fixed:

Developer → Lead developer → Development manager → Test manager → Test coordinator → Tester

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Slide 3

Communication lines

Green Workplace Economics

Bug reporting in a scrum team:

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Slide 4

Recruitement

Green Workplace Economics

| English language | Communication | Agility | Assertivity |

Workshop (same as for Duch testers)

Recruiting a number of new employees in a limited time frame is a challenge

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Introducing new employees

Green Workplace Economics

New employees come to Holland for 2 months

Goals:
- Get to know each other on a personal level
- Get to know the country
- Social activities
- Training

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The Indian testers

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Logistical challenges
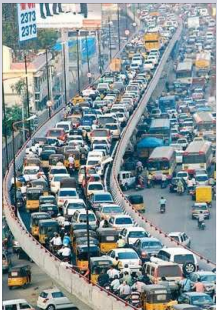
Daily communication

Time difference: +3.5 hrs (summer) / +4.5 hrs (winter)

Overhead time

Ad-hoc discussions

Tools:

| Skype | Mikogo | Webcams + headsets | Communication corners |

Daily communication

Software / tools

Bandwith problems

Nightly builds (SUT) have to be available in India early

Automated test results come in late

Everything is slower for the Indian tester

| Virtual Machines | Build schedules | Sharepoint portal | Bug reporting system |

Meetings
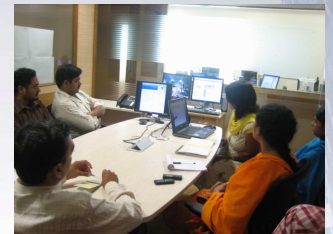
| Test scrum | Professional circle | Test retrospective |

Communication rooms

Mobile communication corner ("crash car")

ActiveBoard

Meetings

Meetings

Conclusion

Productivity will not be the same as in co-located teams

Doing Scrum helps!

Both sides need to adjust to each other's culture

Meeting face-to-face is crucial

Encourage Indian colleagues to participate and take initiatives

Treat the Indian side of the team as equals:

- Assigning difficult tasks
- Involving in discussions

What our testers say about it

Advantages:
- Learn from other cultures / different insights
- Increased test capacity
- Forced communication
- More hours per day
- It's fun and a challenge

Disadvantages:
- Time difference (less time spent together)
- Communication: overhead / dependency on tools
- Training / coaching is difficult (e.g. Pair Testing)
- Language

What our testers say about it

Pitfalls / impediments:
- network problems / logistics
- other Planon departments are only located in NL
- too little communication / face-to-face discussions
- Dutch team members are inclined to assign difficult tasks to themselves

Culture:
- Indians are very polite
- Indians tend to mix work & private more than we do
- "Yes" and "OK" have different meanings
- Hierarchy (sometimes feels like we are the "higher caste")
- Many Indians already have experience with other cultures (Europe, USA)

Questions?

THANK YOU