European
Lean IT Summit

13 & 14 october, 2011
Paris, France

Lean with Distributed Teams

"Aligning IT projects with the business"
(2009-2011 experience)

Agenda

- LEAN Approach - Starting Point
- Step by Step Optimization
  - Time Management
  - Scope & Quality Management
- Distributed Teams Management
  - Communication Management
- Customer feedback & Conclusion

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LEAN approach

STARTING POINT

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When telecom meets IT

- **IT-Telecom Convergence**
  - 90's : Communication
  - Today : Services & Applications

  > 1987 : [] Phoning becomes a sixth sense.

  > Today : [] The world is yours.

- **Project context :**
  - Services platform customization
  - Three mobile operators, MVNOs, one outsider
  - Highly competitive and reactive Mass Market
  - Launches linked to communication campaigns

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LEAN Starting Point

Performance Domains	2009 Status
Time	Project lead-time not matching the market Poor response time to competitors (iterative project mode)
Scope	Change requests added during the whole project length
Quality	Significant cost of non quality (rework and defects detected during customer acceptance)
Communication	Customer complaining about a « tunnel » effect. Teams complaining about scope creep/rework and response time between the development and the test teams.
Human resource	Stress and high turnover rate, bottleneck syndrome

⇒ Customer demands :

- Reduce projects lead-time
- Ensure deliverables compliance – « no bug policy »
- Lower total costs

LEAN reflexion is initiated in collaboration with the customer.

2011 "win-win scenario"

Performance Domains	2011 Status
Time	Directly linked to project complexity
Cost	Price transparency (complexity model)
Scope	Scope "smoothing" and prioritization
Quality	Errors root causes are identified and actions taken.
Communication	• No tunnel effect, continuous feedbacks. • Daily synchronisation and obstacles resolution. • Responsibility clearly identified. • Project KPIs and progress available for all stakeholders

Chart values: Project lead-time: 2009 100%, 2011 50%; Change requests: 2009 100%, 2011 25%; Defects & errors (seen by customer): 2009 100%, 2011 15%.

Legend: 2009, 2011

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Time, Scope & Quality Management

STEP BY STEP OPTIMIZATION
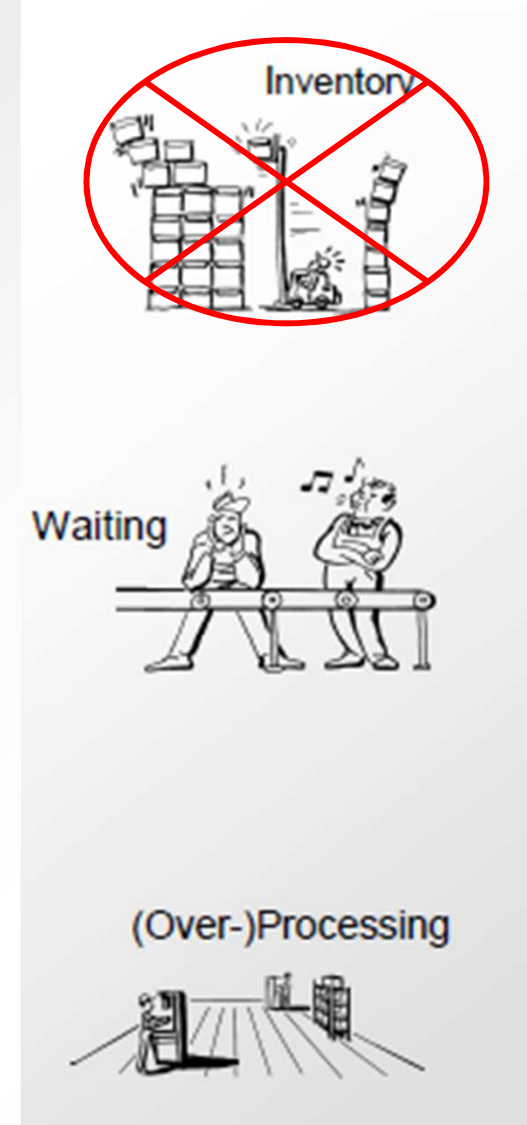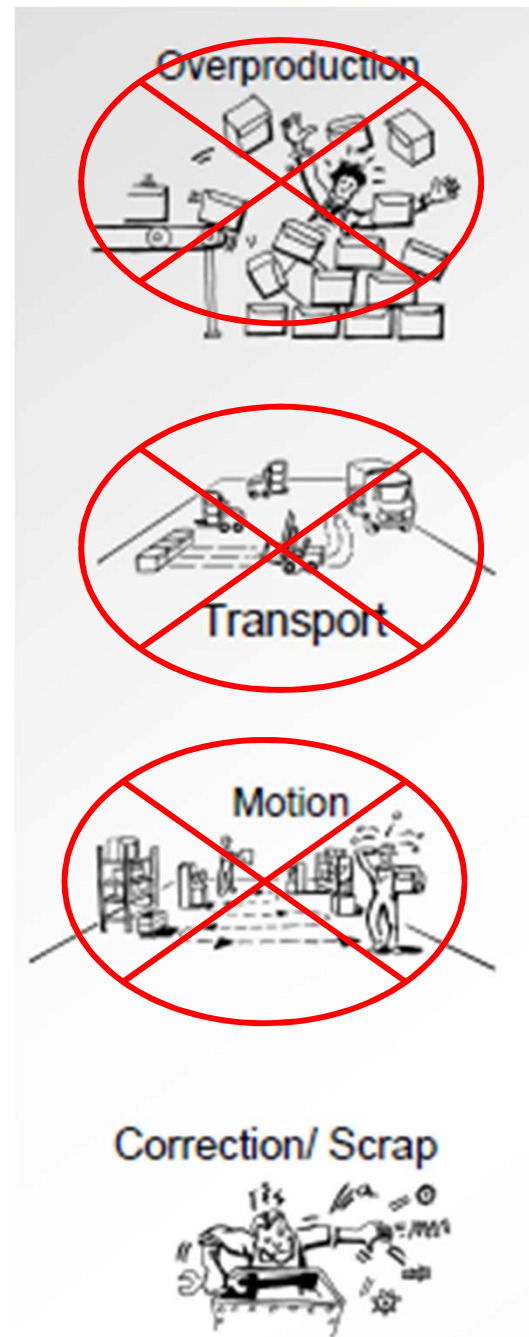
The Muda Analysis : 7 types of waste

Principle : **Wastes in all our processes lead to higher costs and longer lead times.**

In our case : three wastes are identified

1 – Waiting : "waterfall" process

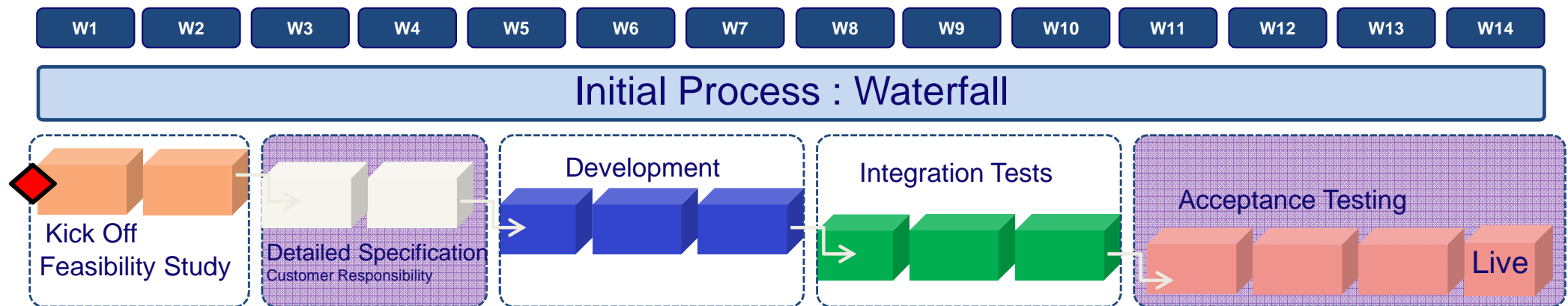2 – Over-Processing (adding complexity)

3 – Correction

Two last issues mostly linked to three factors :

 - late change requests and scope creep

 - errors partial analysis

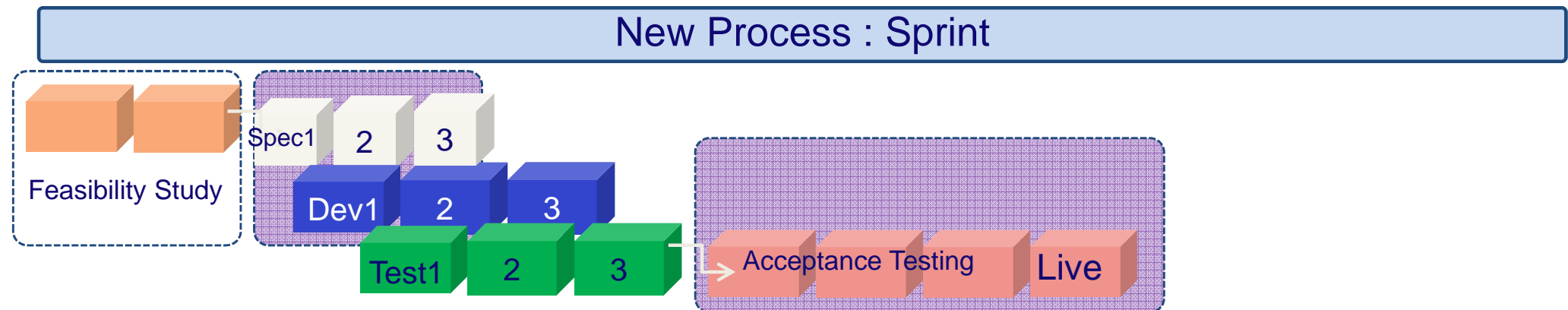 - communication flaws between stakeholders

Overproduction

Inventory

Transport

Waiting

Motion

(Over-)Processing

Correction/ Scrap

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Time Management – Step 1

W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14

Initial Process : Waterfall

Kick Off
Feasibility Study

Detailed Specification
Customer Responsibility

Development

Integration Tests

Acceptance Testing

Live

⇒ Project particularities :

- Iterative project mode
- Feasibility study : recommendations to match customer needs with the platform logics
- Detailed specification from the customer is a prerequisite for both dev. and testing

New Process : Sprint

Feasibility Study

Spec1 2 3

Dev1 2 3

Test1 2 3

Acceptance Testing

Live

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Kaizen feedbacks : Step 1

Step 1 Assessment :

Collaboration & Communication

Correction/ Scrap

(Over-)Processing

Step 1 – results

Chart:
- Project lead-time: 2009 = 100%, 2010 = 75%
- Change requests: 2009 = 100%, 2010 = 60%
- Defects & errors (seen by customer): 2009 = 100%, 2010 = 65%

Legend: ■ 2009 ■ 2010
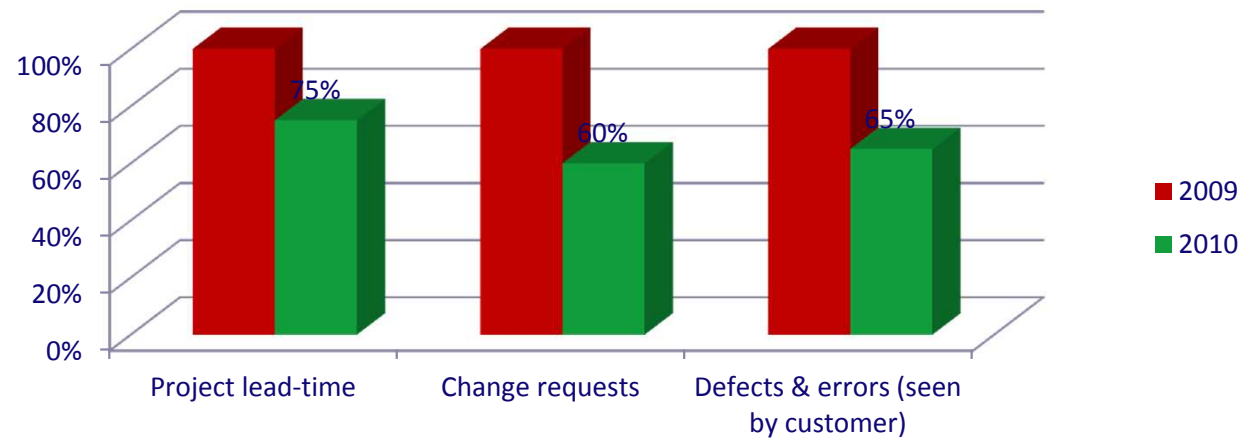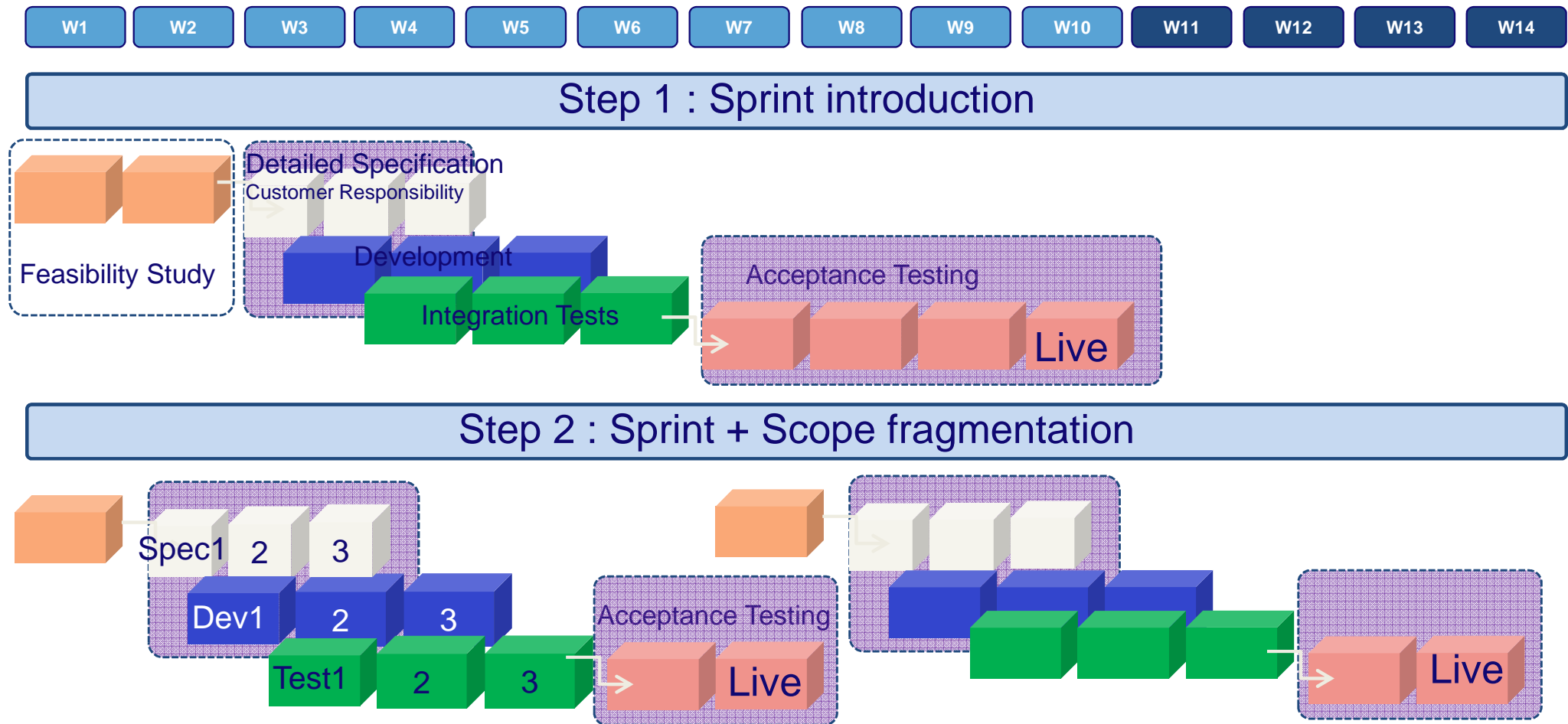
⇒ Given this conclusion, the customer agreed to **split up the scope** if project **lead-time** was **directly linked to the scope complexity**.

Time Management – Step 2

| W1 | W2 | W3 | W4 | W5 | W6 | W7 | W8 | W9 | W10 | W11 | W12 | W13 | W14 |

Step 1 : Sprint introduction

Feasibility Study

Detailed Specification
Customer Responsibility

Development

Integration Tests

Acceptance Testing

Live

Step 2 : Sprint + Scope fragmentation

Spec1 2 3

Dev1 2 3

Test1 2 3

Acceptance Testing

Live

Live

⇒ Two iterative optimized projects in one initial « waterfall » project time frame.

⇒ Scope reduction & quality improvement shortens the acceptance testing phase

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Kaizen feedbacks : Step 2

- Customer involvement & reorganisation : scope "smoothing" over iterative projects
- Supplier engagement : lead-time proportionally linked to scope complexity
- Communication improvement
- Enforced quality control and corrective actions

Step 2 - Results

	2009	2011
Project lead-time	100%	50%
Change requests	100%	25%
Defects & errors (seen by customer)	100%	15%
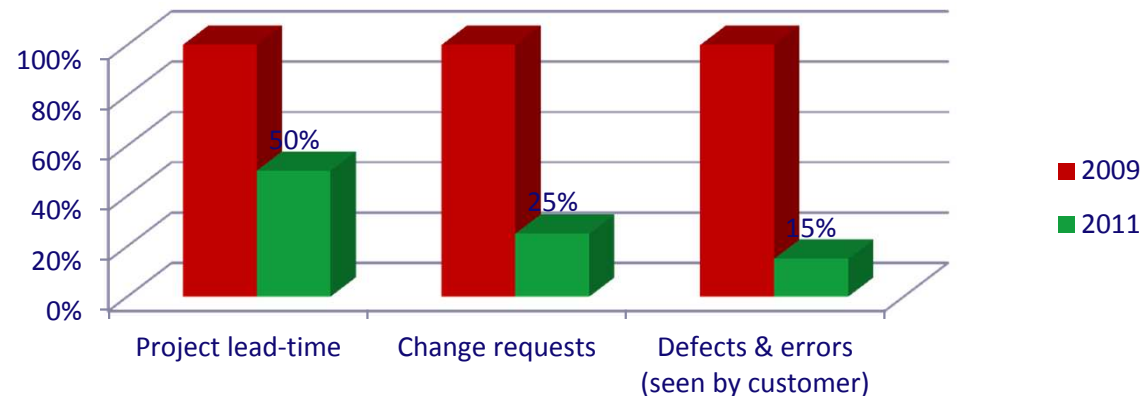
How did the project team managed ?

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Communication Management

DISTRIBUTED TEAMS

Distributed Team context

- Project Team based in four locations
  - Project Manager/Experts – Site A
  - Development team – Site B
  - Testing team – Site C & D
- Interventions on three customer locations
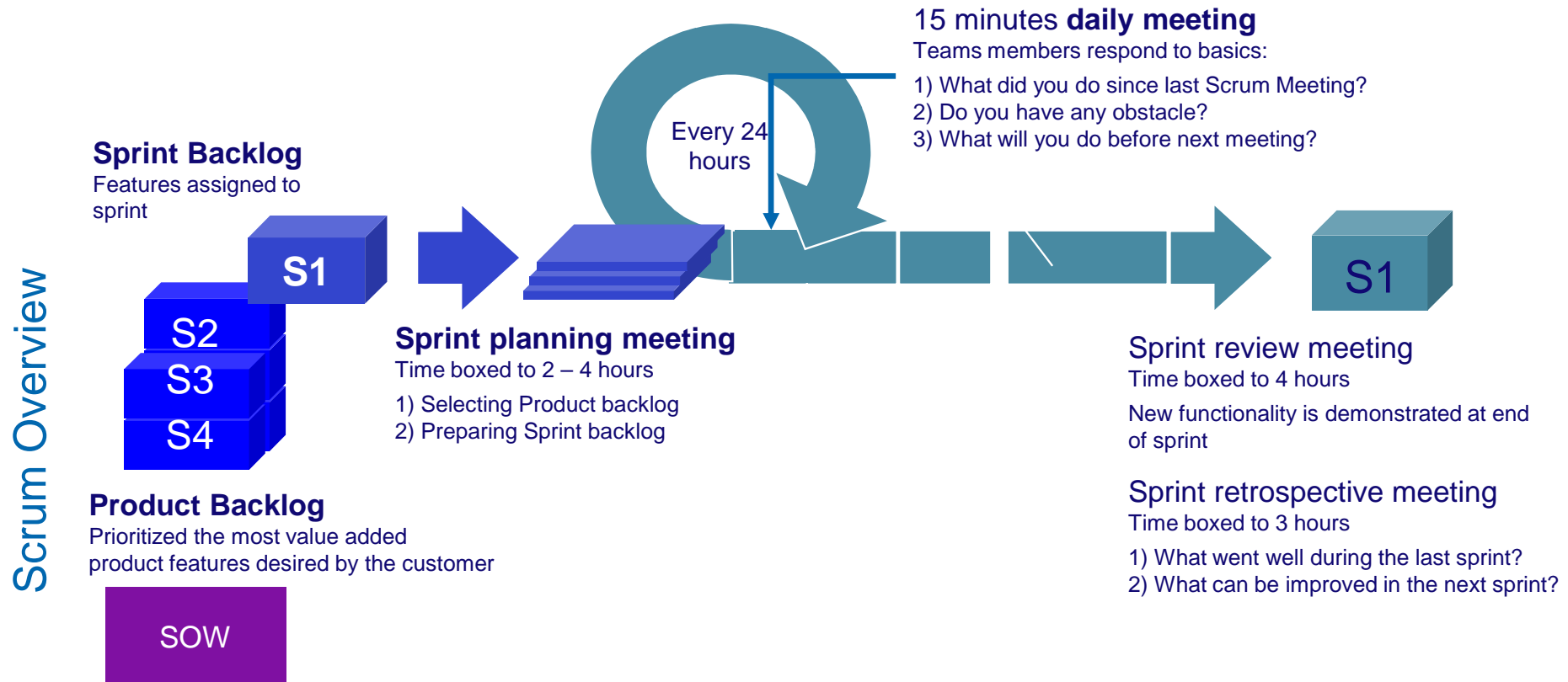
How is Visual Management possible ?

Different methods applied

- Scrum – Stand Up Meeting
  - Collocated vs Remote Organization

- Planning & Quality Follow up

- Kaizen
  - Feedback loop
  - Success and points to improve
  - Field experience

- Team "buy in"
 - Roadmap
  - Project Aim

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Scrum Meeting

15 minutes daily meeting
Teams members respond to basics:
1) What did you do since last Scrum Meeting?
2) Do you have any obstacle?
3) What will you do before next meeting?

Every 24 hours

Sprint Backlog
Features assigned to sprint

S1

S2
S3
S4

Scrum Overview

Sprint planning meeting
Time boxed to 2 – 4 hours

1) Selecting Product backlog
2) Preparing Sprint backlog

S1

Sprint review meeting
Time boxed to 4 hours

New functionality is demonstrated at end of sprint

Sprint retrospective meeting
Time boxed to 3 hours

1) What went well during the last sprint?
2) What can be improved in the next sprint?

Product Backlog
Prioritized the most value added product features desired by the customer

SOW

Prerequisite : The scrum will have 2 phases (with and without the customer).

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Scrum Management

- Colocated
  - Initiation of the sprint process with the team
  - Mentoring on visual management and scrums

TO DO — Work in Progress — Done

- Distributed
  - Each coordinator is in charge of his projects local visual support
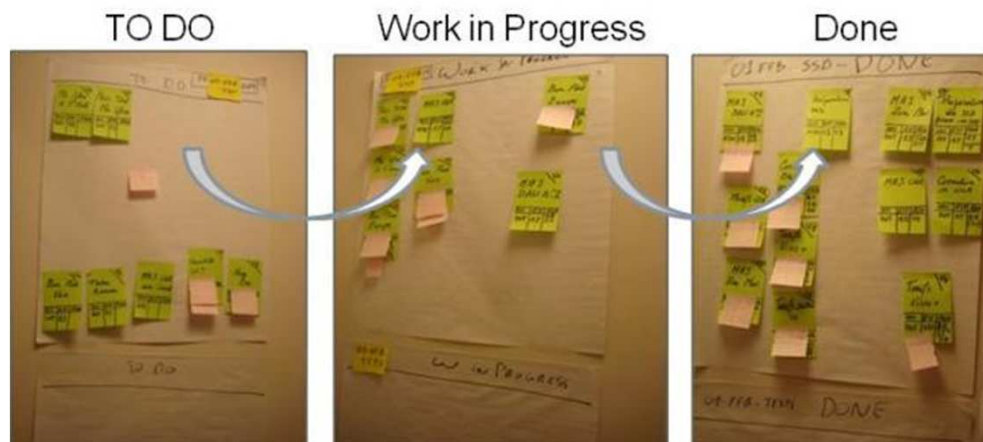
	To Customer + Team
PM	Progress, Action Log
Coordinator	Exchange grid

"Ok, now that I have you all here..."

Visual Management limitation
➢ Visual management practice must be outsourced on each remote site
➢ Support must be adapted to digital exchanges

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Planning & Quality Follow up

Next to the team
Updated in real time by the team

PLANNING FOLLOW UP - VISUAL

➢ The full project planning is available.

QUALITY FOLLOW UP - VISUAL

Including customer vs. Internal errors

➢Project Team can justify reworks and cost of non quality (his responsibility or customer's)

➢ Customers' errors are reported to the customer as soon as detected

➢ Project team errors are visible during the project and retroactively.
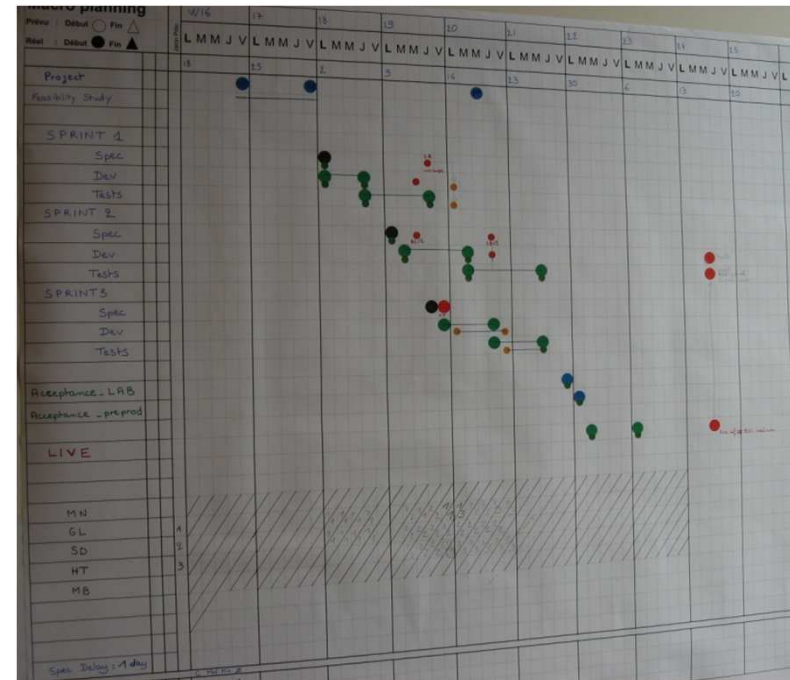
Support for Kaizen
Share of responsibility
Quality "real time audit"

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KAIZEN " change for the better"

- Monthly meetings
- Debriefing of the last KAIZEN actions
- Main events & Feedback loops
  - Review of the Month Successes
  - Review of the Month Deficiencies
  - Level of deliverables conformance
- Review of field experience & sites' visits
- Processes, Tools & Communication enhancement lead
- Experience feedbacks between projects
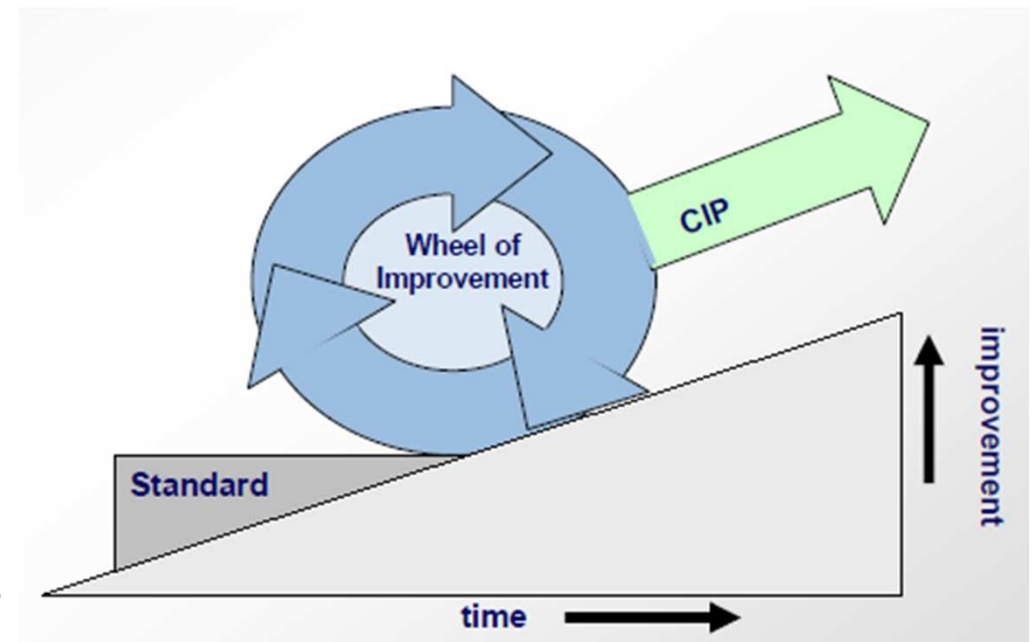
Quality of deliverables follow up

Project Team Quality Monitoring

CUSTOMER responsibility

Specific KPIs defined with the customer are monitored and reported by the project team.

DEV or TEST TEAM responsibility

-Is it a misunderstanding of the customer's need ? A lack of time ? A unexpected delay ?

⇒Feasibility study, processes & communication to review

-Is it a human error ? A misunderstanding of the way to implement or a dev/test tool limitation ?

⇒Is the documentation up to date ? Has the proper training/briefing been made ? Can we improve the tools ?

Each error is sorted out and KPIs monitored to follow the evolution project by project.

Project team Competence Monitoring

LEAN Project Management with Distributed Teams - Caroline Leclerc
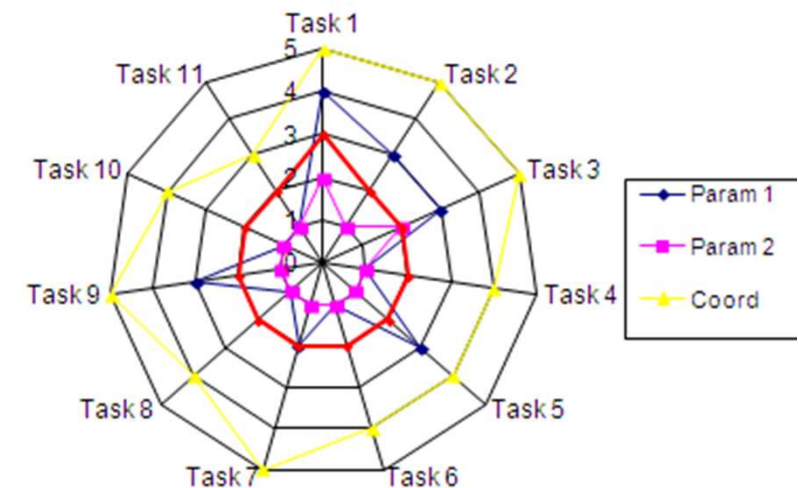
On site management & Field experience

SCRUM ON SITE
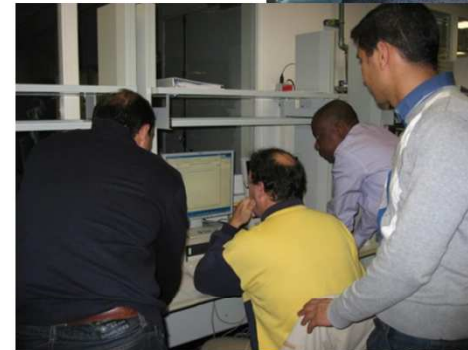
- Once a week

- Updates of documents to display

FIELD EXPERIENCE (live deployment)

Emphasize problematic on :

-Logistic

-Organisation of operations

-Team share of responsibility

-Stress

-Tools limitation

-Workarounds in place

-Etc…

⇒Encounter with all teams' members

⇒Conclusions seen in Kaizen

Feedback Loops & Recognition

How Do You Give Positive/Negative Feedback to Your Team Members?

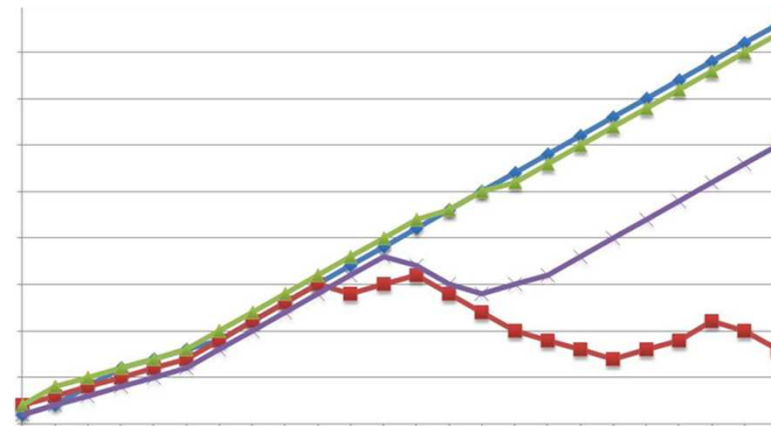Weekly « satisfaction » KPIs enhance healthy competition between teams.

Weekly « weather forecast » is the occasion to summarize the week main events.

Subjective Dissatisfaction /Satisfaction is visible and reported.

Summary is presented by each team during the monthly KAIZEN workshop .
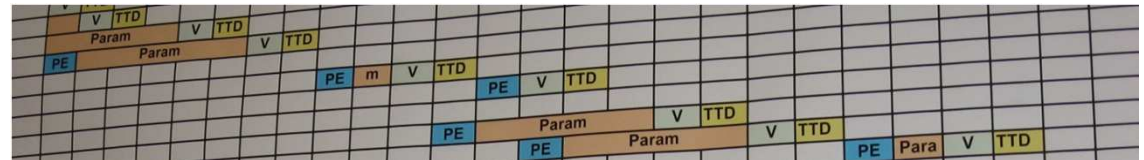
Snapshot

Cumulated

Three points of view :
➢ Development Team (from PM)
➢ Testing & Deployment Team (from PM)
➢ Project perception (from customer)

Team anticipation & Project business purpose

ROADMAP

+ Locally displayed

+ Team members are fully aware of the planning to come and free to comment it.

PROJECT PURPOSE

+ Links technical projects to their business purpose

+ Align team technical objectives with customer's strategy

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Conclusion as a Project Manager

CUSTOMER FEEDBACK

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Customer feedbacks

Congratulations received in 2011

PM experience

+ Close collaboration with the team

+ Work together with customer toward shared outcomes

+ Business and technical constraints shared and understood by all stakeholders

+ Good understanding of the team activity, concerns and obstacles

+ Projects' progress graphically displayed and available for every hierarchy levels during and after the project (improvement is obvious)

+ Healthy competition between projects and teams

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Q&A