Requirements Gathering

Stuart McBain

Agenda

- Who Am I?   (2 mins)
- Who are P&G? (5 mins)
- What is IDS? (3 mins)
- Requirements gathering for the "Appliance Database" (30 mins)
- Talk about Testing Lecture (2 mins)
- Q&A

Who am I (5 Min)

- Stuart McBain
- 2:1 BSc (Hons) in Computer Science (2004)
- Applied for P&G (sales) in (2004)
- Successfully re-applied to P&G (IDS) (2005)
- I work in Research & Development in Laundry care in Newcastle

P&G are a Fast Moving Consumer Goods Company

P&G

Who can name some brands?

23 Billion-Dollar

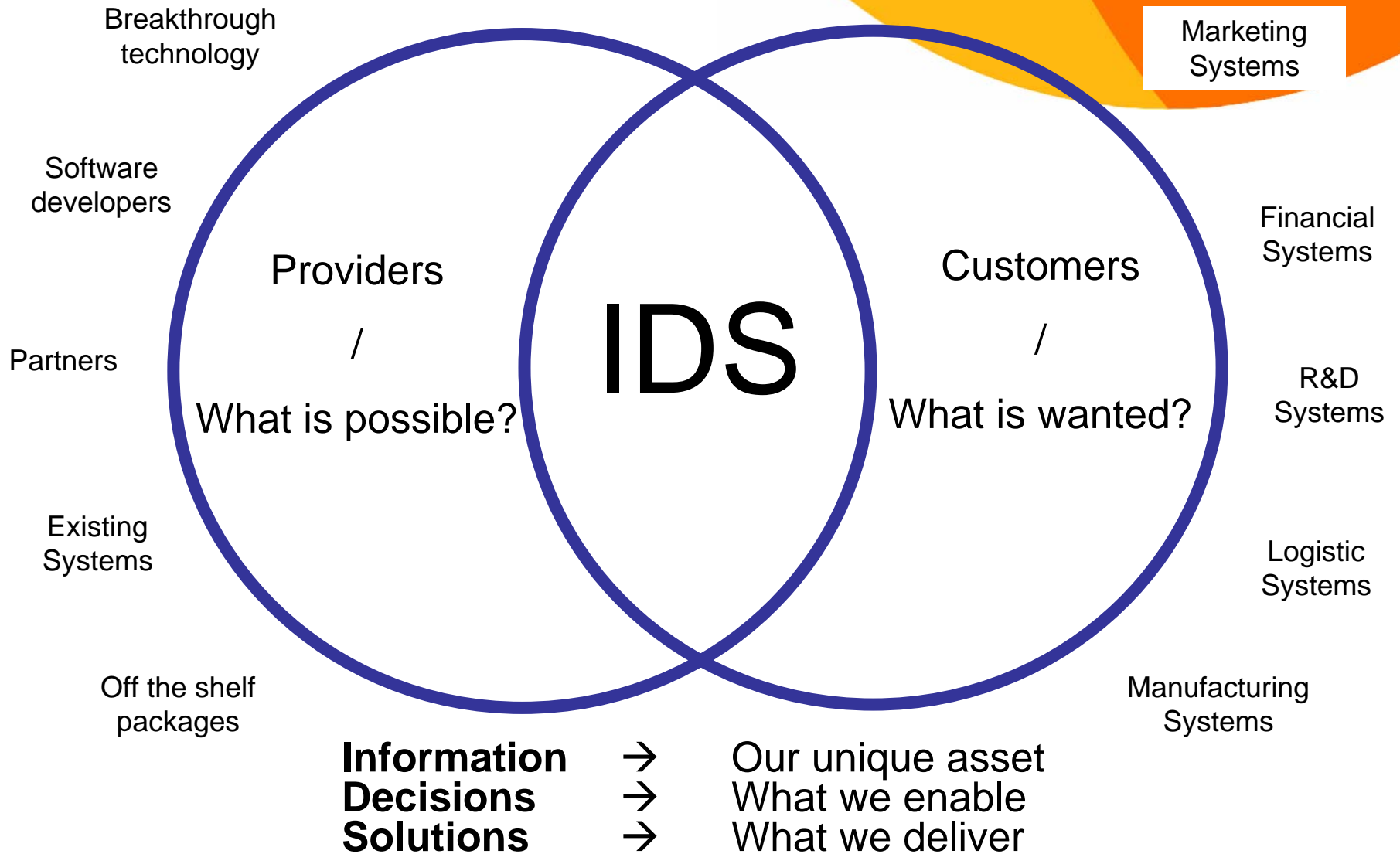P&G Brands

P&G a new challenge everyday

Who are P&G

- P&G has 300 Brands in more than 160 countries and employs across the globe more than 110,000 people worldwide.

- On The Ground Operations in 80 Countries

- 2500 IDS Employees worldwide

- Recent Acquisitions (Gillette, Wella, Clairol)

Breakthrough
technology

Marketing
Systems

Software
developers

Providers

/

What is possible?

IDS

Customers

/

What is wanted?

Financial
Systems

Partners

R&D
Systems

Existing
Systems

Logistic
Systems

Off the shelf
packages

Manufacturing
Systems

Information → Our unique asset
Decisions → What we enable
Solutions → What we deliver
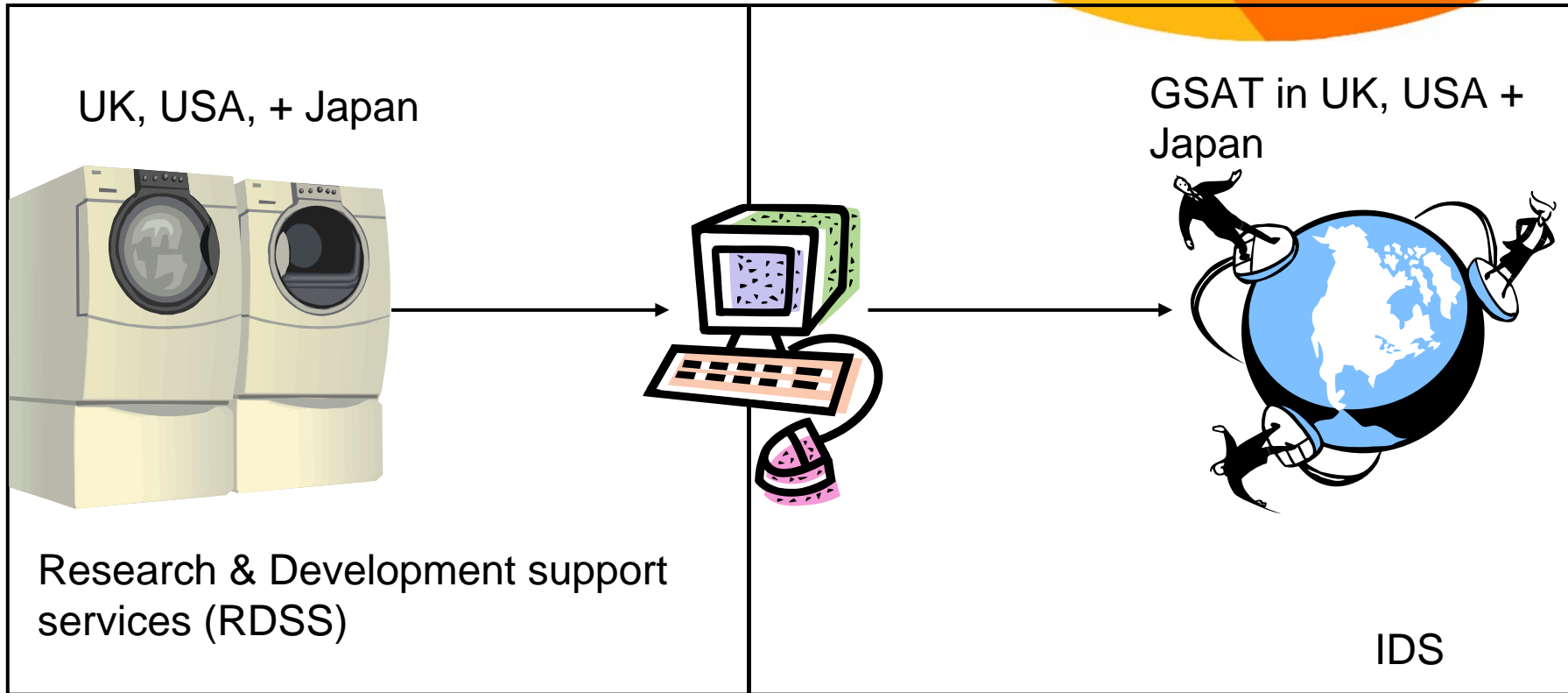
The Appliance Database

P&G

Background

- Used by Laundry Care – Think Ariel, Bold etc

- In Laundry care there are:
  - Experts who design the product
  - Experts who test the product in various appliances (Global Strategic Alliance Team GSAT)

- The Appliance Database was needed to track the appliances in which our products were tested – Think Washing Machines

The idea

UK, USA, + Japan

GSAT in UK, USA + Japan

Research & Development support services (RDSS)

IDS

* Remember we deal in information – not hardware

Scope

- Scope – Take appliance data <u>from the Data Acquisition Systems</u>, <u>add</u> appliance <u>information manually, make it available via a web interface</u>

- Regarding Scope - "If you don't know where you are going how will you know when you get there?"

Requirements –Getting Started

- Identified people involved – if you don't talk to everyone you will miss something
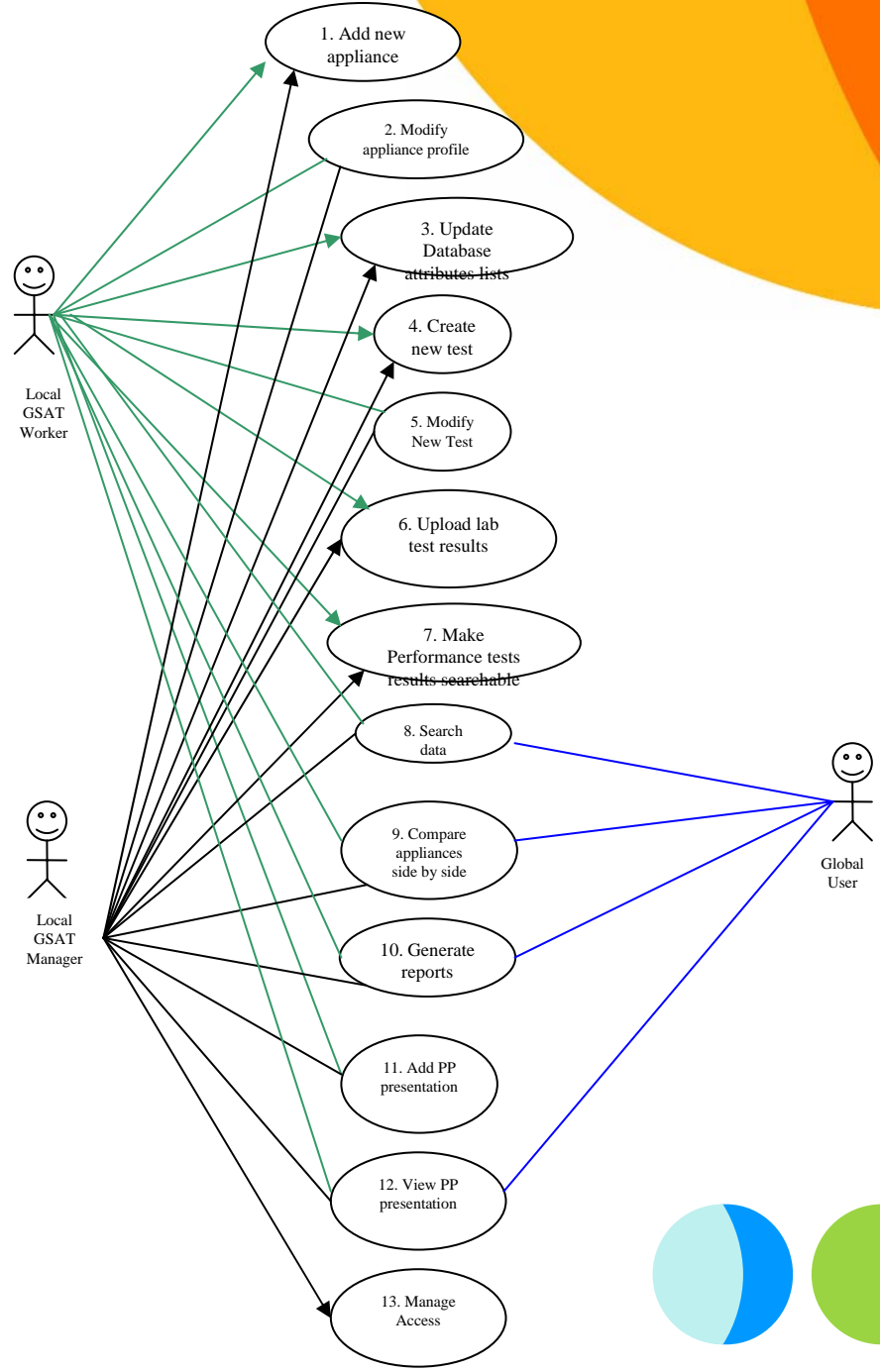- More people = less risk
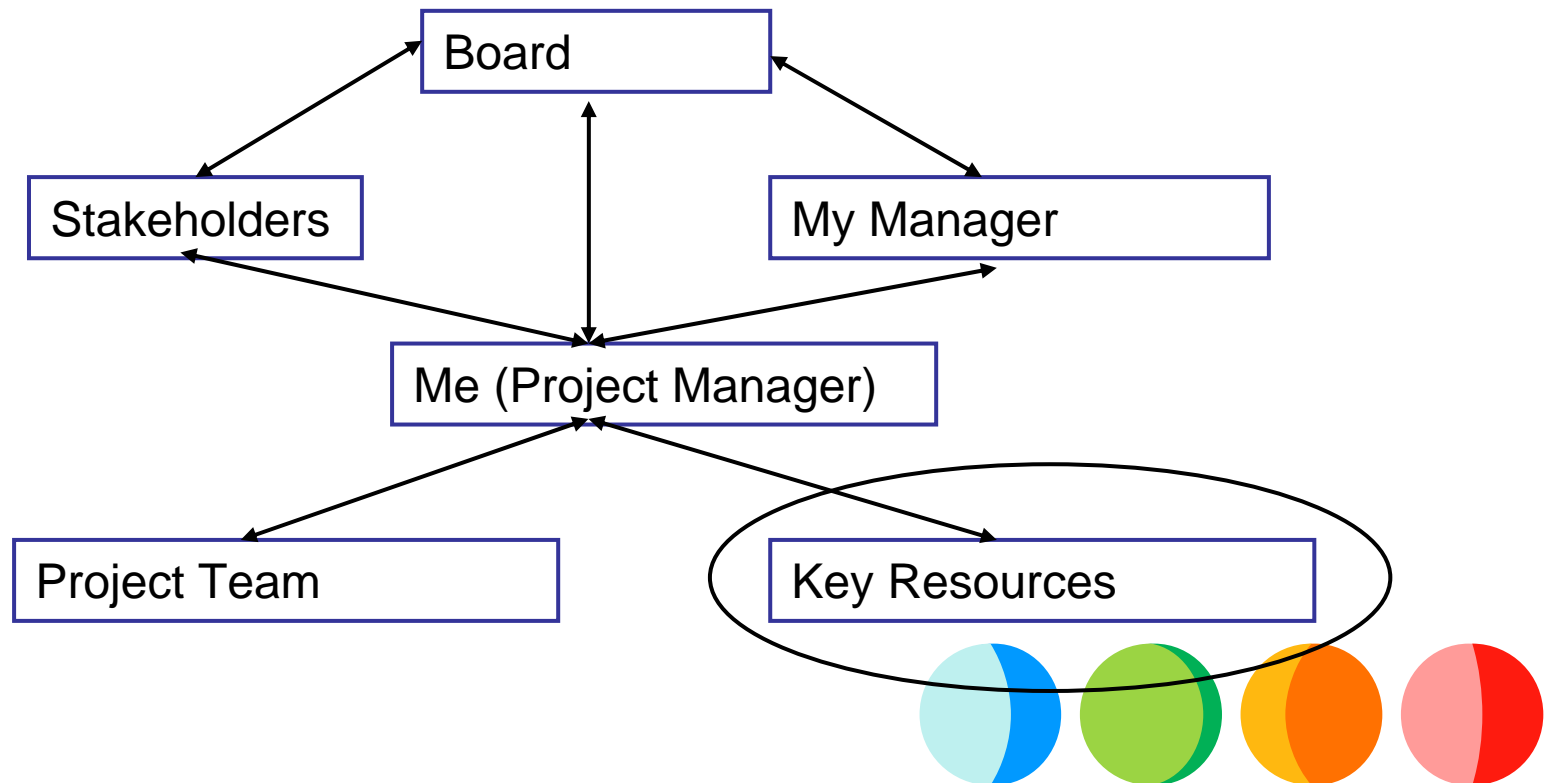
Key Resources

- Key users
- Owners of other systems that interact with your solution
- Our keys resources are our link with the business
- I'm are the single point of contact between the providers and the key resources.
- Key user(s) in UK, USA & Japan

Gathering Requirements

- What is current?
  - Understand the base + pain areas
  - Use use-cases to identify processes
  - Use flow charts to start to add detail to those processes
  - Go back to key users "is this correct?"
  - _The key users work that with the end users_

- Start again - what is desired?
  - Armed with the knowledge of the current system

- Use prototypes / mock ups etc

Actors:
- Local GSAT Worker
- Local GSAT Manager
- Global User

Use cases:
1. Add new appliance
2. Modify appliance profile
3. Update Database attributes lists
4. Create new test
5. Modify New Test
6. Upload lab test results
7. Make Performance tests results searchable
8. Search data
9. Compare appliances side by side
10. Generate reports
11. Add PP presentation
12. View PP presentation
13. Manage Access

Advantages

- Makes users think
- Help users visualise the process
- Easier to understand than text
- Very focused
- Industry standard terminology used by vendors as well
- Each time you do it you are REDUCING RISK

Disadvantages

- Users don't know UML
- Can be time consuming
- Feels like overhead
- Writing documentation is not to everyone's taste
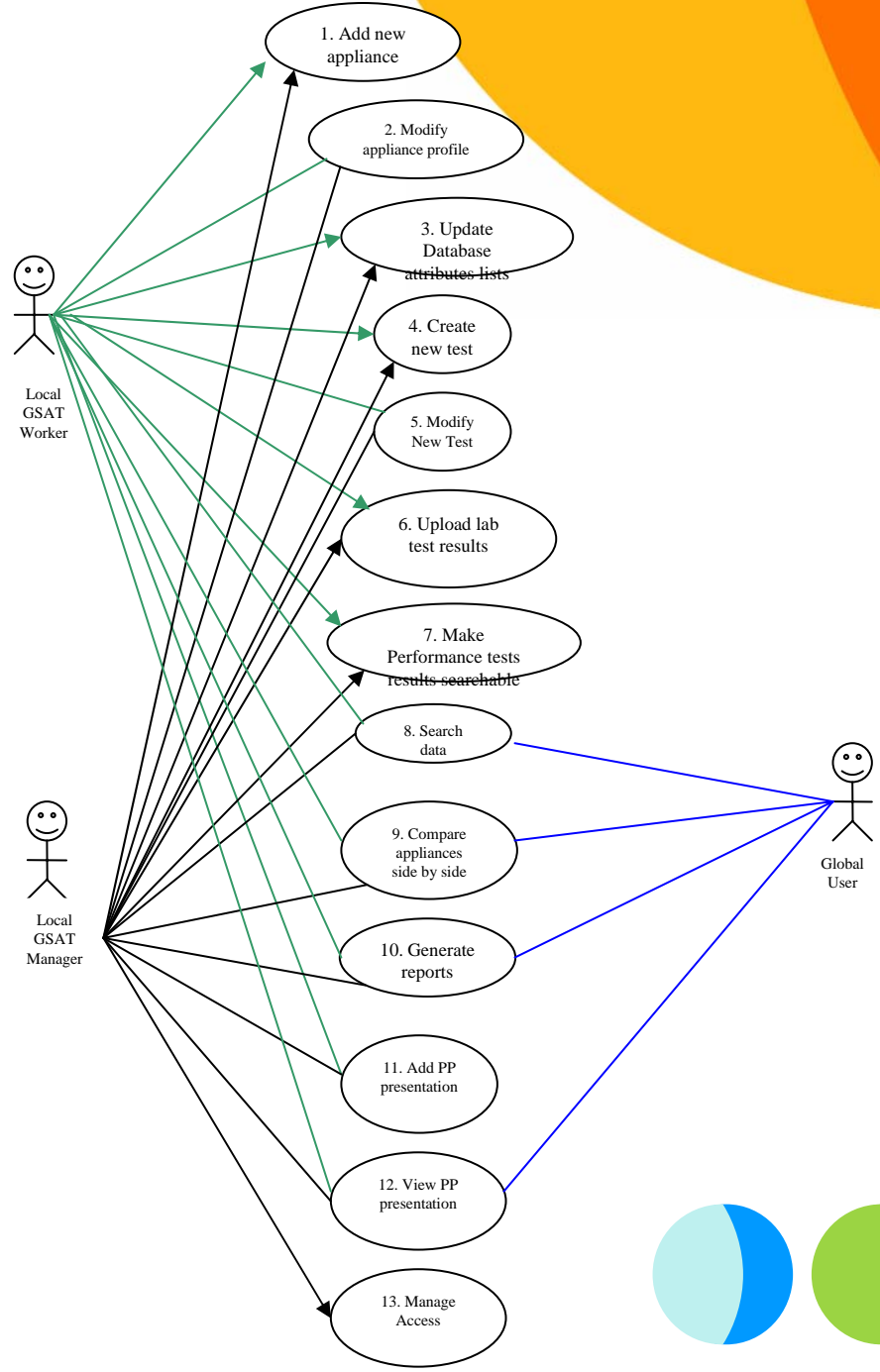
Don't go too far…

- Don't define the solution
  - "if all you have is a hammer you see every problem as a nail"
- Car Example
  - Buy a car: *too vague*
  - Buy a red Corsa: *too specific, might miss out, not using the expertise of the car sales man*
  - Buy a car, in this price bracket: ✓

Appliance Database Use Cases

- 13 Use Cases

- **Actors**
  - The GSAT Manager
  - Local GSAT Worker
  - Global User
  - DAQ

Use case diagram:

Actors: Local GSAT Worker, Local GSAT Manager, Global User

Use cases:
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Use Case Detail

Local GSAT Worker

Local GSAT Manager

1. Add new Appliance

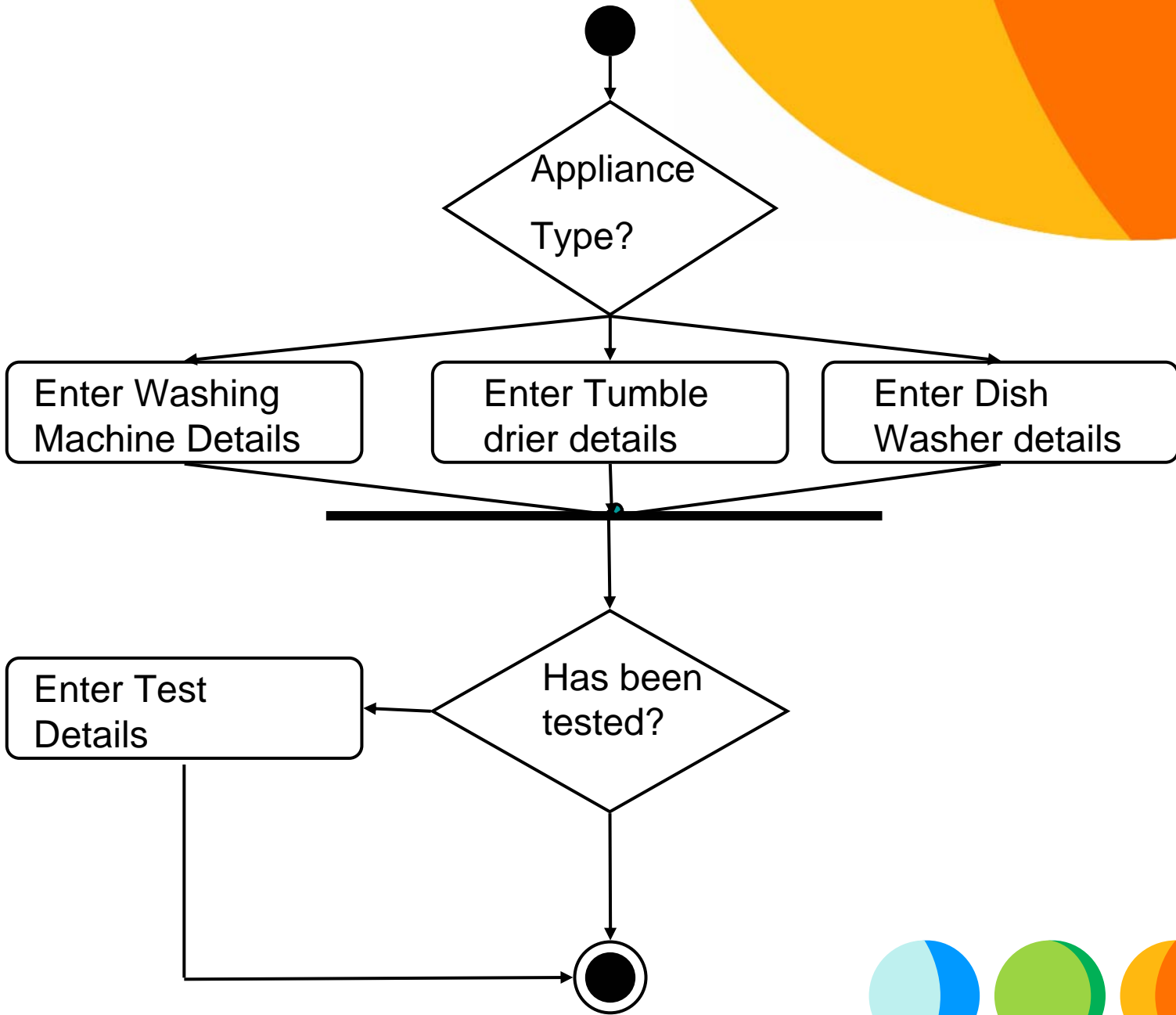# Add new appliance

- **Pre–condition**: The data about the appliance is not stored in the database yet.

- **Actor:** local GSAT Worker, local GSAT manager

- **Details:**
  – The local GSAT Worker choose appliance type
  – Appliance number will be generated automatically
  – GSAT Workers will be prompted to assign the right attributes to the appliances.
  – Common features should be picked from a list
  – The local GSAT Worker will be able to add tests to the appliance record containing date, test number and short incidence description
  – The User will also upload pictures of the appliance.

```
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                        │
                        ▼
                  ╱─────────────╲
                 ╱   Appliance   ╲
                ╱                  ╲
                ╲      Type?       ╱
                 ╲                ╱
                  ╲─────────────╱
          ┌───────────┼───────────────┐
          ▼           ▼               ▼
┌──────────────┐ ┌──────────────┐ ┌──────────────┐
│ Enter Washing│ │ Enter Tumble │ │ Enter Dish   │
│Machine Details│ │ drier details│ │Washer details│
└──────────────┘ └──────────────┘ └──────────────┘
          └───────────┼───────────────┘
        ━━━━━━━━━━━━━━━━━━━━━━━━━━━━
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                ╱─────────────╲
                │  Has been    │
                │  tested?     │
                ╲─────────────╱
┌──────────────┐      │
│ Enter Test   │◄─────┘
│ Details      │
└──────────────┘
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       │              ▼
       └──────────► ◎
```

Summary

- Identify Stakeholders
- Talk to them
- Use cases identify high level processes
- Flow charts define specific processes
- Requirements require Business sign off
- Refer back to requirements for success criteria i.e. does it do what you set out to do

Real Value

- On a small academic project, it can seem like more overhead than work

- Sometimes the balance feels wrong

- On real projects, these are the things that save you

- Being great at project management makes you great at delivering things → superstar!
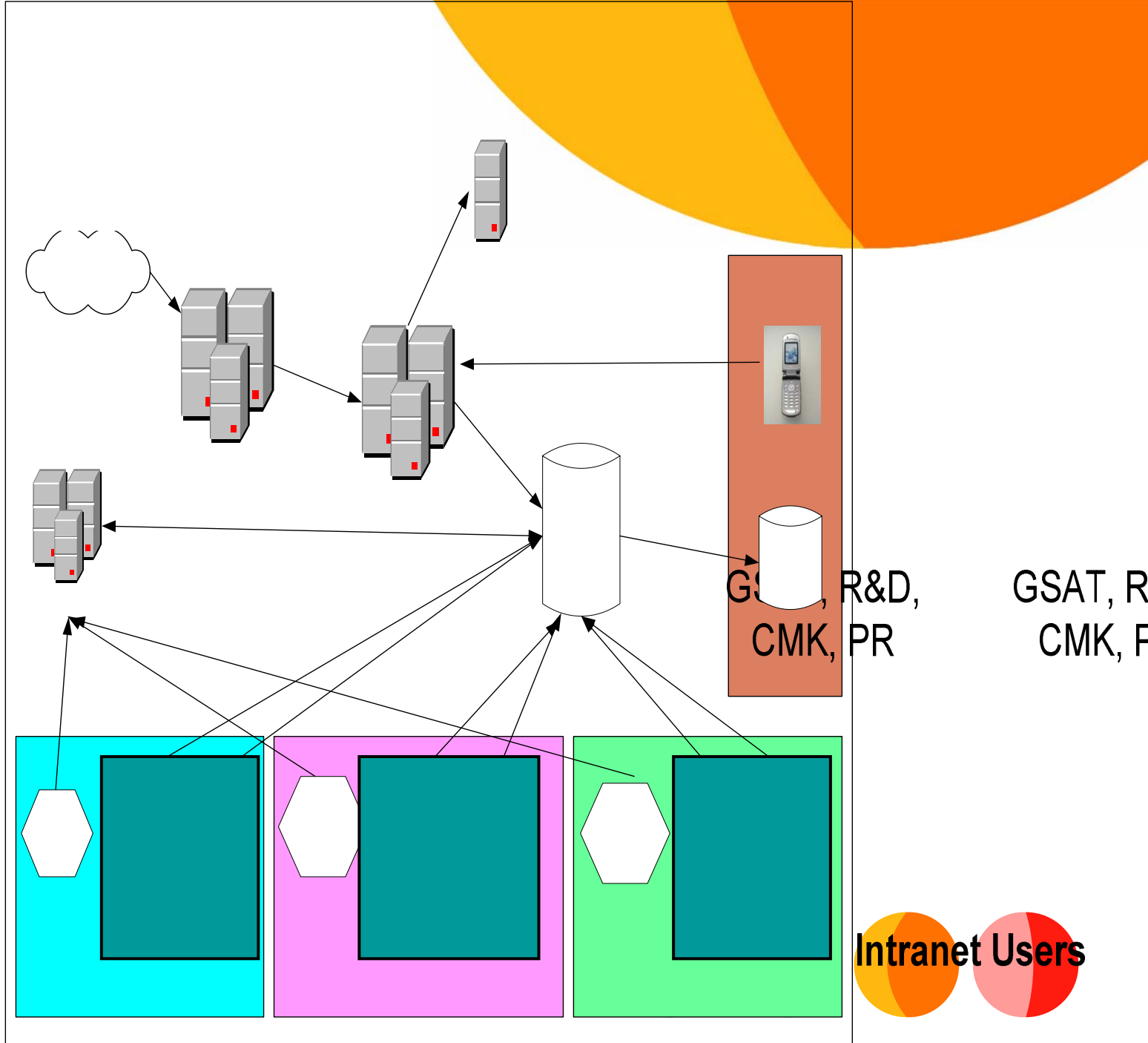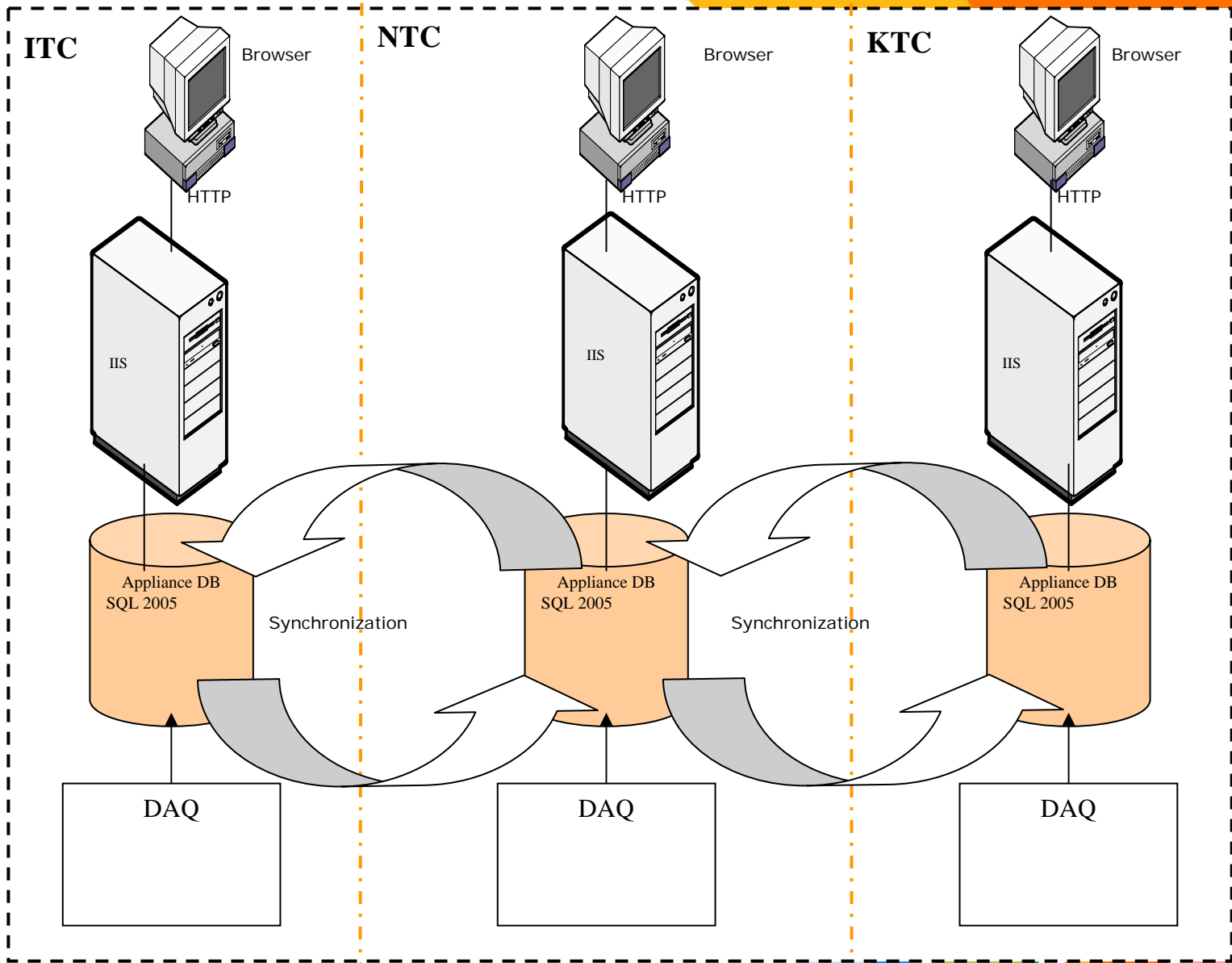
What Happens After Requirements?

P&G

Tender Process

- Central purchasing identify & work with vendors to ensure fairness & legality

- Vendors replied with questions

- 2 Rounds of Q&A with vendors

- Vendor provides proposal, description of their understanding + project plan + cost + technical details of the solution

GSAT, R&D,
CMK, PR

GSAT, R
CMK, P

Intranet Users

ITC   Browser

NTC   Browser

KTC   Browser

HTTP

HTTP

HTTP

IIS

IIS

IIS

Appliance DB
SQL 2005

Appliance DB
SQL 2005

Appliance DB
SQL 2005

Synchronization

Synchronization

DAQ

DAQ

DAQ

Vendor Comparison

	Vendor 1	Vendor 2	Vendor 3	Vendor 4
Compliance to GSAT requirements	✓	✓	X	✓
Meets technical requirements	✓	✓	X	✓
Compliance with other R&D systems	X	✓	X	X
Initial Price	$120M	>$200M	$190M	£110M
Reviewed Price	$100M	$150M	$160M	£110M

Sneak Peak

- Using SAP integration as the case study
  - Unit Testing
  - System Integration Testing
  - Business Acceptance Testing
- Issue tracking
- Success Criteria
- Friday 16th November

Thanks – Questions?

BTW the corporate presentation is tomorrow

Time 7:00pm

Highland Suite
Paramount Carlton Hotel
North Bridge