How to get the message across

Niels Malotaux

N R Malotaux
Consultancy

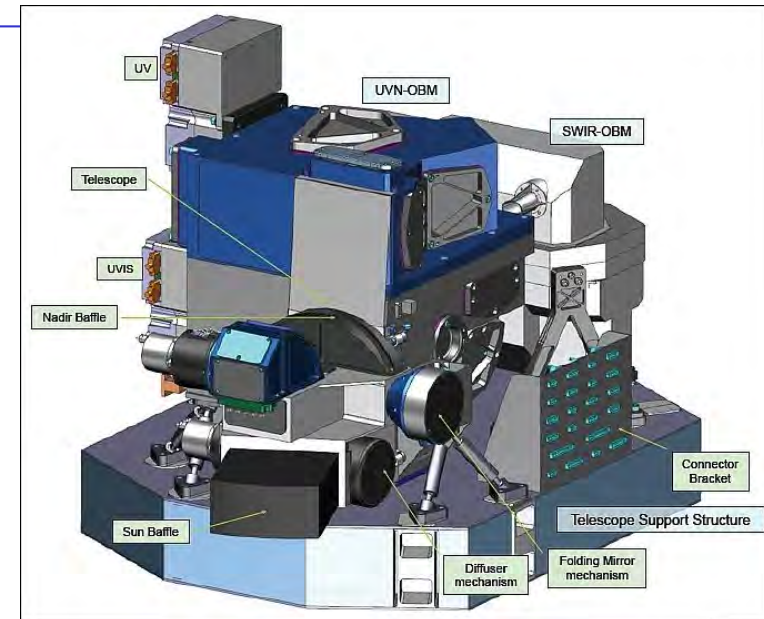**+31-30-228 88 68**   **niels@malotaux.nl**   **www.malotaux.nl**

Niels Malotaux

- **Project Coach**

- **Helping projects and organizations very quickly to become**
    - **More effective – doing the right things better**
    - **More efficient – doing the right things better in less time**
    - **Predictable – delivering as predicted**
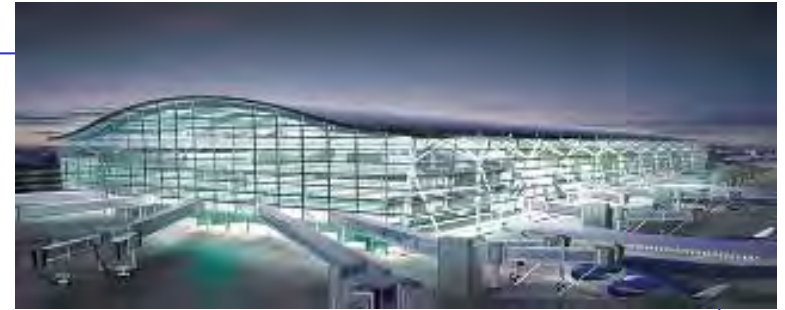- **Getting projects back on track**

Result Management

Earth Observation Satellite

- **Very experienced Systems Engineers**
- **They use quantified requirements routinely**
- **They don't know exactly where they'll end up**
- **10 year pure waterfall project** (imposed by ESA)
- **Only problem: They missed all deadlines**
- **Now: The haven't missed any deadline for a year**

Do engineers really know ?

- **Heathrow Terminal 5: Great success !**
  - Normal people aren't interested in the technical details of a terminal
  - They only want to check-in their luggage as *easily* as possible and
  - Get their luggage back as *quickly* as possible in *acceptable condition at their destination*
  - They didn't

- **One of the problems is to determine what the project** (or your work in general) **really is about**

- **What are the 'real' requirements ?**

- **Clear focus towards the real requirements saves time**

Somebody said the requirements should be *SMART*

- **Do we have documented requirements ?**
- **Are they SMART ?**

- **S**   **Specific**
- **M**   **Measurable**
- **A**   **Attainable**
- **R**   **Realisable**
- **T**   **At the right Time** (some say: Traceable)

Requirements with Planguage

ref Tom Gilb

Definition:

RQ27: Speed of Luggage Handling at Airport

Scale: Time between <arrival of airplane> and first luggage on belt

Meter: <measure arrival of airplane>, <measure arrival of first luggage on belt>, calculate difference

Specific

Measurable

Benchmarks (Playing Field):

Past: 2 min [minimum, 2012], 8 min [average, 2012], 83 min [max, 2012]

Current: < 4 min [competitor y, Jan 2013] ← <who said this?>, <Survey Dec 2012>

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Attainable

Requirements:

Time

**Must:** < 10 min [99%, Q4] ← SLA

Must: < 15 min [100%, Q4, Heathrow T4] ← SLA

Goal: < 15 min [99%, Q2], < 10 min [99%, Q3], < 5 min [99%, Q4] ← marketing

Realizable

What are the Requirements for a Project ?

- **Requirements are what the Stakeholders require**

but for a project …

- **Requirements are the set of stakeholder needs that the project is *planning to satisfy***

   This is what you'll get, if you let us continue

Stakeholders are people
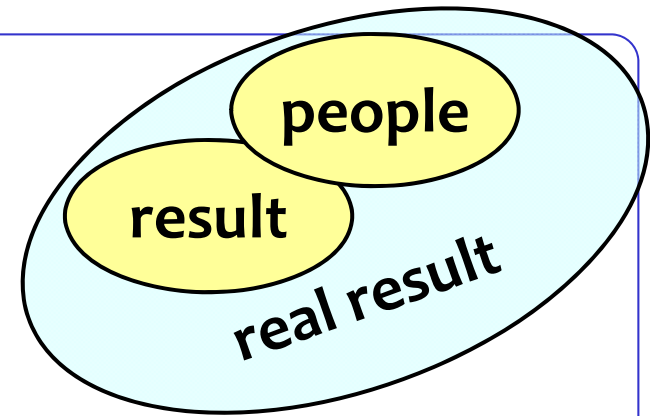
- **Every project has some 30±20 Stakeholders**
- **Stakeholders have a stake in the project**
- **The concerns of Stakeholders are often contradictory**
  - Apart from the Customer *they don't pay*
  - So they *have no reason to compromise !*
  - In most cases, finally, *we all pay*
- **Developers don't understand what users find normal**
- **Some Stakeholders are victims of the project**
  - They have no reason for the project to succeed, on the contrary
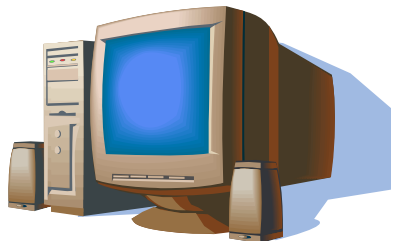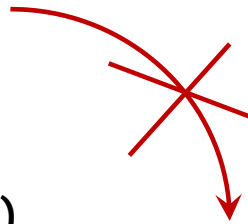
Victims can be a big Risk
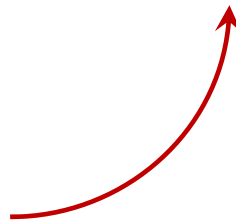
Victims:
Narita Airport
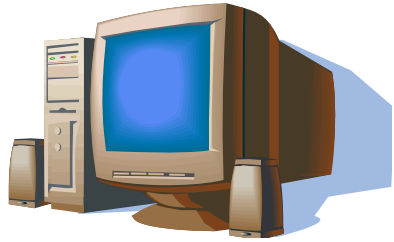
Their old system (cash cow)

Our new system

Victims may cause us to fail

No Stakeholder?

- **No Stakeholder: no requirements**
- **No requirements: nothing to do**
- **No requirements: nothing to test**
- **If you find a requirement without a Stakeholder:**
    - **Either the requirement isn't a requirement**
    - **Or, you haven't determined the Stakeholder yet**
- **If you don't know the Stakeholder:**
    - **Who's going to pay you for your work?**
    - **How do you know that you are doing the right thing?**
    - **When are you ready?**

When is 'it' done ?

- **Now you are able to specify 'it'**
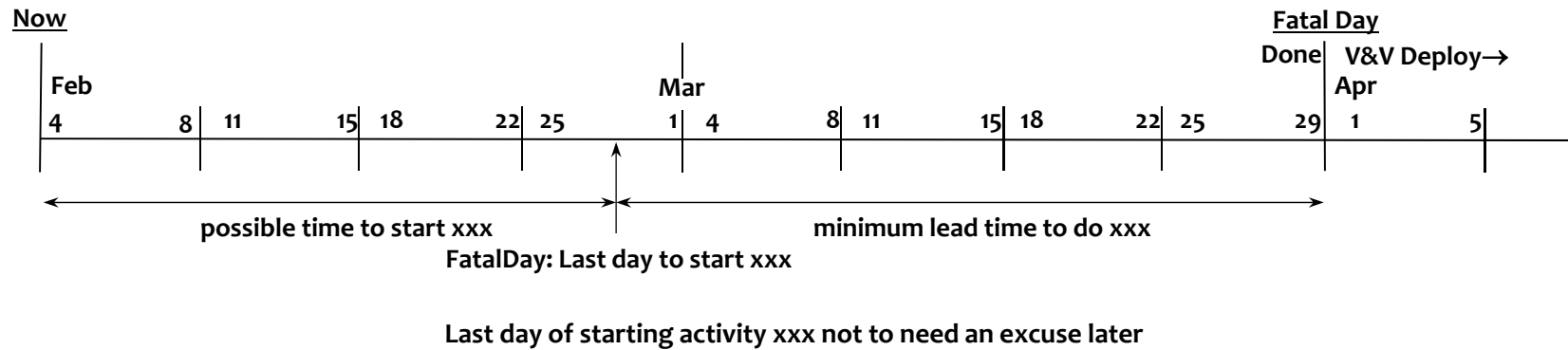
- **Can you predict when 'it' is done ?**

Delivery time is a Requirement

- **Delivery Time is a Requirement,
  like all other Requirements**

- **How come most projects are late ???**

- **Apparently all other Requirements
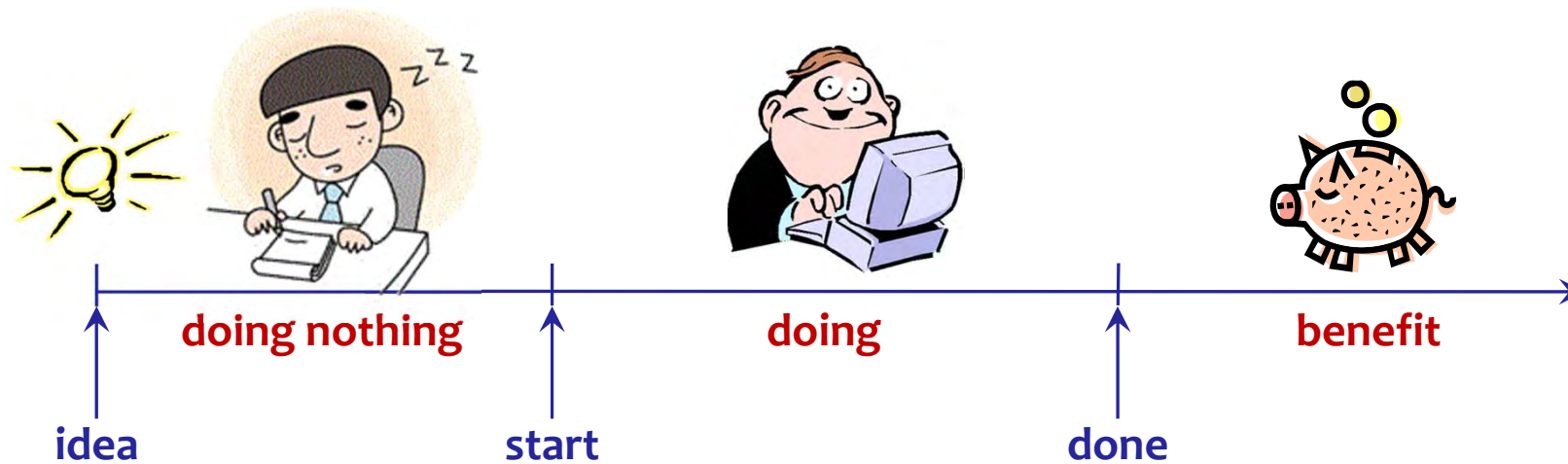 are more important than Delivery Time**

Fallacy of '*all*' requirements

- **"We're done when *all* requirements are implemented"**

- **Isn't delivery time a requirement ?**

- **Requirements are always *contradictory***

- **Design is to find the optimum compromise between the conflicting requirements**

- **Do we really have focus on the *real* requirements ?**

- **Did the customers define *real* requirements ?**
  - **Usually even less trained in defining *real* requirements than we are**

- **What we think we have to do should fit the available time**

- **Instead of *letting it happen*, let's decide *how it will happen***

Last day of starting xxx not to need an excuse later

Now

Fatal Day
Done| V&V Deploy→

Feb
Mar
Apr

4   8| 11   15| 18   22| 25   1| 4   8| 11   15| 18   22| 25   29| 1   5|

←——— possible time to start xxx ——→|←——— minimum lead time to do xxx ———→

FatalDay: Last day to start xxx

Last day of starting activity xxx not to need an excuse later

Why is time important

doing nothing   **doing**   **benefit**

idea   start   done

Return on Investment (ROI)

- **Benefit of doing** - huge (otherwise other projects would be more rewarding)
- **Cost of doing** - project cost, usually minor compared with other costs
- **Cost of doing nothing** - every day we start later, we finish later
- **Cost of being late** - lost benefit

What is the cost of one day of (unnecessary) delay ?

- **What is the cost of the project per day ?**

- **Do you know how much you cost per day?**
  Note: that's not what you get !

- **If you don't know the benefit, assume 10 times the cost of the project ?**

- **0th order estimations are good enough**

- **Do we know the benefit of our project ?**

- **Do we know the penalty for delay ?**

- **How can you make decisions if you don't know ?**

Top Level Requirement

Quality on Time

- **Delivering the Right Result at the Right Time, wasting as little time as possible** (= efficiently)

- **Providing the customer with**
  - what he needs
  - at the time he needs it
  - to be satisfied
  - to be more successful than he was without it

- **Constrained by** (win - win)
  - what the customer can afford
  - what we mutually beneficially and satisfactorily can deliver
  - in a reasonable period of time

Current project

- **1600 requirements 'big design up front': just deliver**
- **No clear Goals**
- **No stopping criteria**
- **Customer hasn't got anything useful yet**

No Design in the Requirements, but ...

Needs:
what do we need

Requirements

Options:
how can we do it

Design

Requirements

Selected solution:
this is how we are going to do it

Design

Requirements

Design

Requirements

Design

Design creates the
Requirements for the next level

How the customer explained it

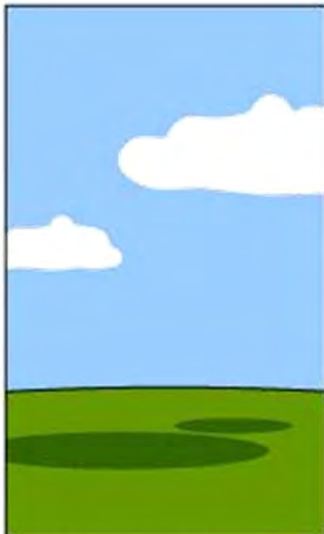How the Project Leader understood it
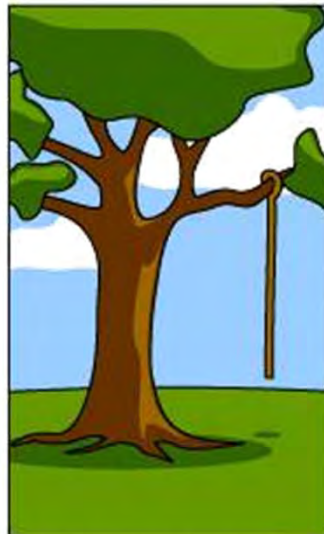
How the Analyst designed it

How the Programmer wrote it
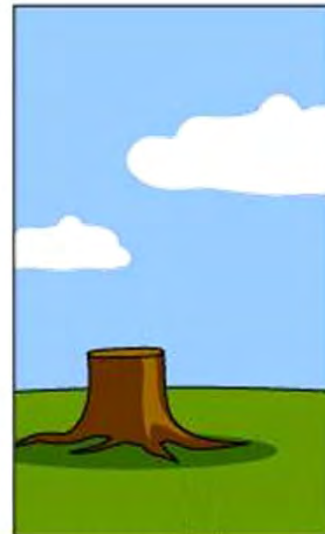
How the Business Consultant described it

How the project was documented

What operations installed

How the customer was billed

How it was supported

What the customer really needed

We're Agile and we're using Scrum

- **Oh dear !**

- **Dances and rituals**

- **Demo's**

- **IT people think the're doing a great job …**

If it only were wine

Delivery Strategy Suggestions (Requirements)

- **What we deliver will be used by the appropriate users immediately, within one week not making them less efficient than before**

- **If a delivery isn't used immediately, we analyse and close the gap so that it will start being used** (otherwise we don't get feedback)

- **The proof of the pudding is when it's eaten and found tasty, by them, not by us**

- **The users determine success and whether they want to pay** (we don't have to tell them this, but it should be our attitude)

Will and *can* you use this tomorrow in practice ?

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