

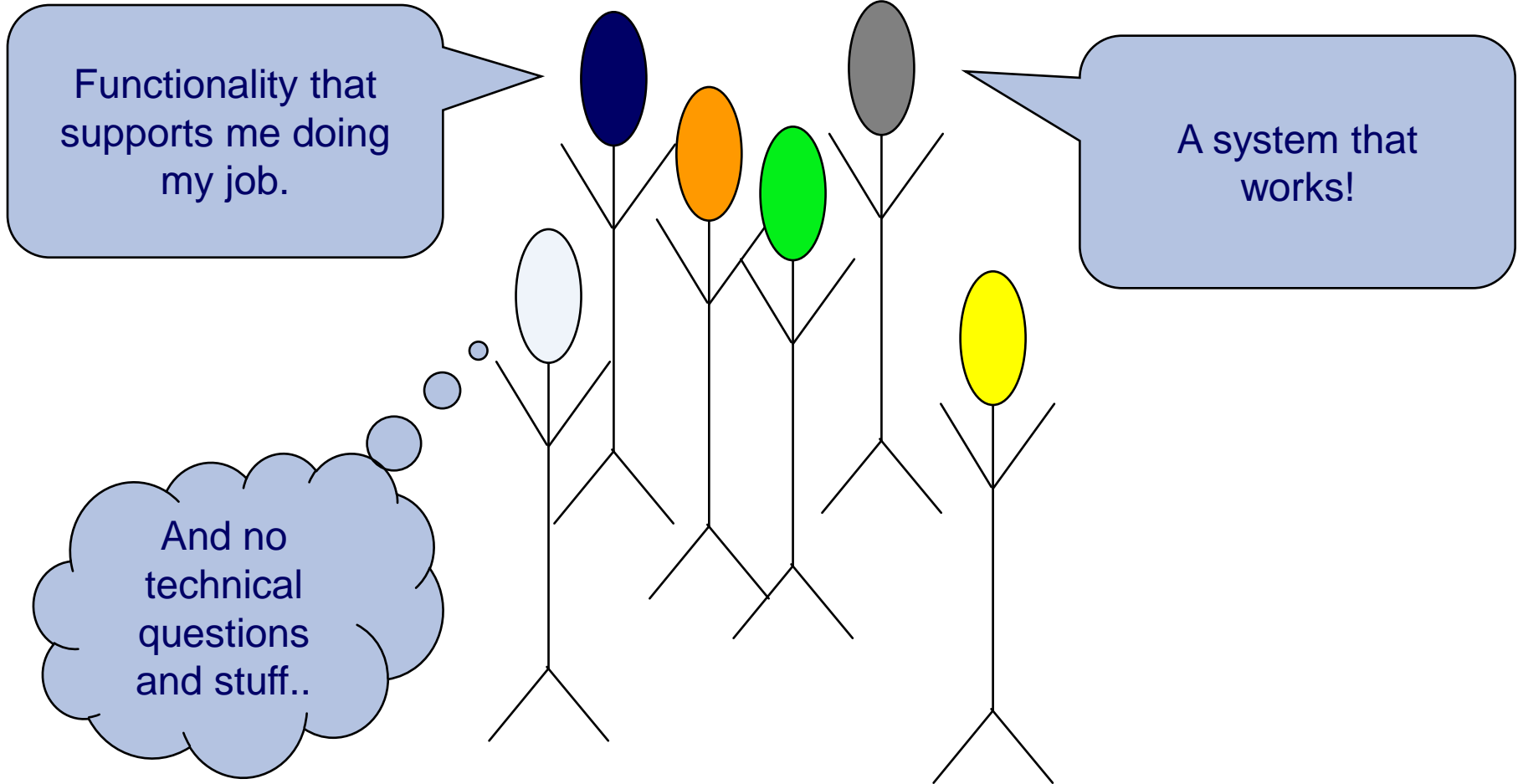
Risk Based Testing

A piece of cake?

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What does the customer want?



Risk Based Testing



Product Risk Analysis

- **Several methods**

- PRISMA®, PRIMA®, TMAP Next®

- **Difficulties**

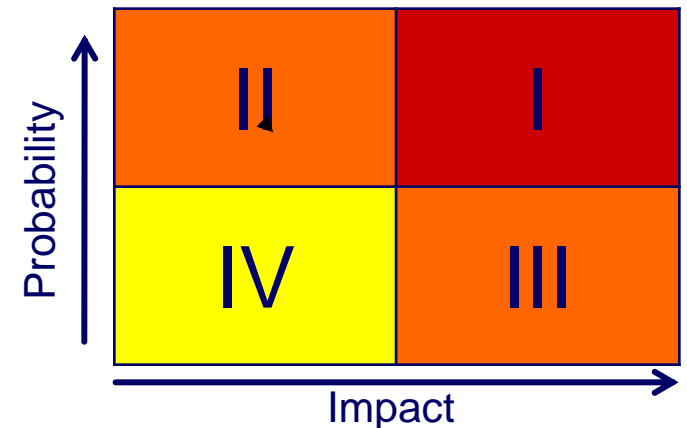
- Hard to determine initial set of risks
- Little time available
- Hard to match risks to the specifications at hand
- Not suitable in maintenance situations

- **Result**

- PRA is barely used

3 types of product risk

- **S**pecification
 - Requirements, objects, changes,..
- **I**ntegral
 - “Out of the box”, implicit
- **R**egression
 - Unchanged items (both specification and Integral)



Example Loading railway timetables

Risks:

Specification

- Automatic loading of timetables daily at 2 am.

Integral

- Automatic loading process is interrupted by a manual instruction to load plans.

Regression

- Manual loading of plans.
- Usage of automatically loaded plans.

Test plan, cases & report:

Specification

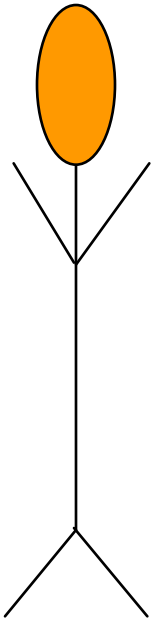
- Automatic loading of timetables daily at 2 am.

Integral

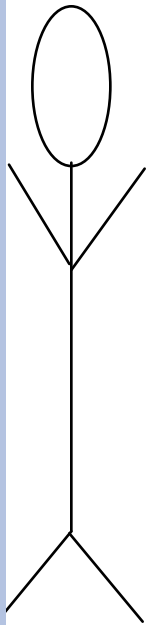
- Automatic loading process is interrupted by a manual instruction to load plans.

Regression

- Manual loading of plans.
- Usage of automatically loaded plans.

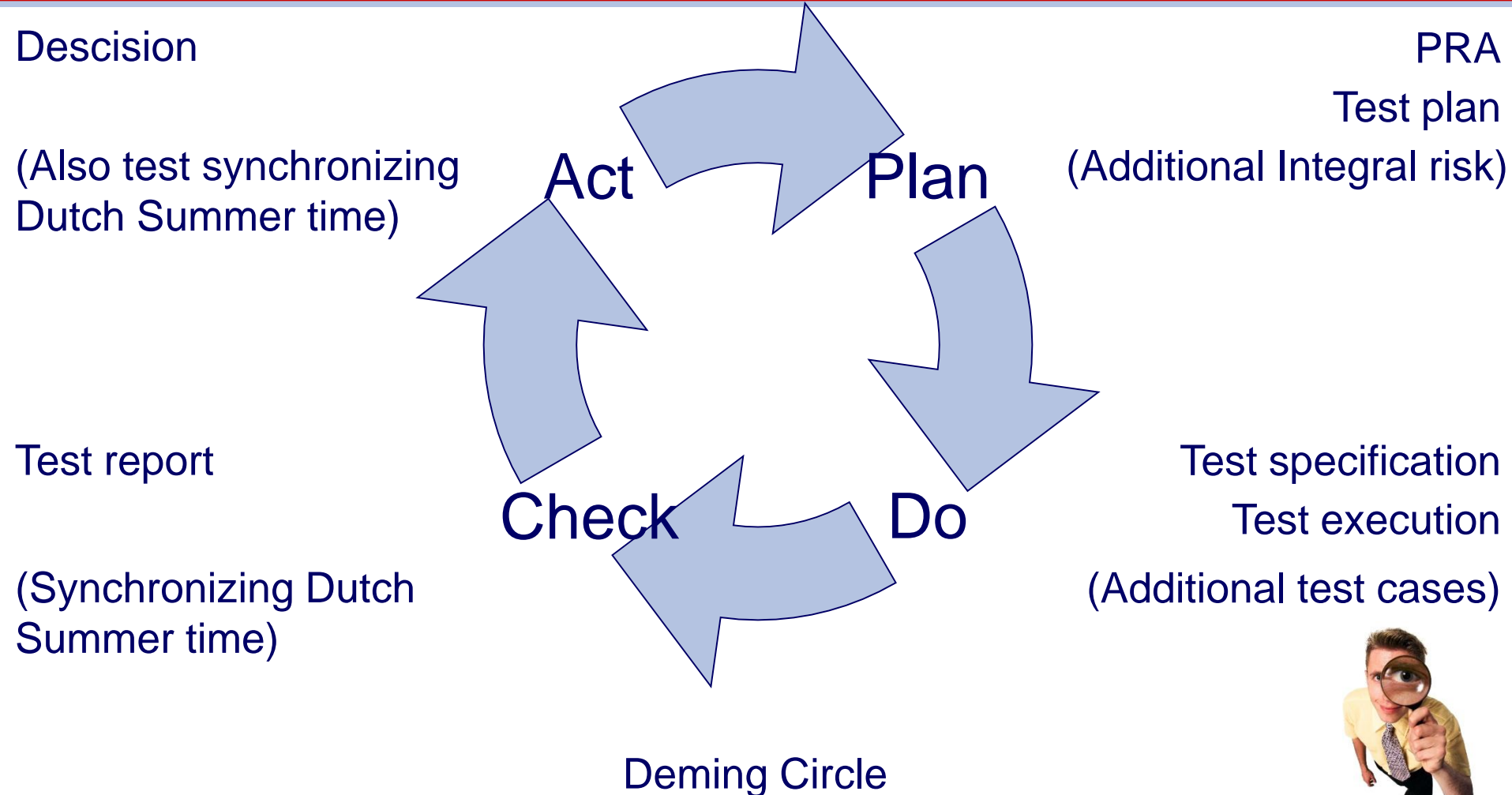


customer



tester

Riskmanagement throughout the process



Risk based reporting

| Type | Description | RK | RK' | Status |
|---------------|---|-----|-----|--------|
| Specification | Automatic loading of plans at 2 am. | II | | Green |
| Integral | Automatic loading process is interrupted by a manual instruction to load plans. | I | | Red |
| Integral | Synchronizing Dutch Summer time | | II | Green |
| Regression | Manual loading of plans. | III | | Orange |
| Regression | Usage of automatically loaded plans. | IV | | Green |

Techniques

- **Use a combination of techniques!**
- **At start of a project**
 - PRIMA® or TMAP Next® or brainstorm
- **Before test execution starts (SIR)**
 - FMECA and/or brainstorm
 - PRISMA®
- **During test execution (SIR)**
 - 'progressive knowledge' (Context Driven Testing)

Conclusion

- **One list of product risks, SIR!**
 - **S**pecification
 - **I**ntegral
 - **R**egression

- **Suitable in almost every situation**
 - Maintenance
 - Traditional testing
 - Context driven testing / Agile testing
 - End2End testing

Questions



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