

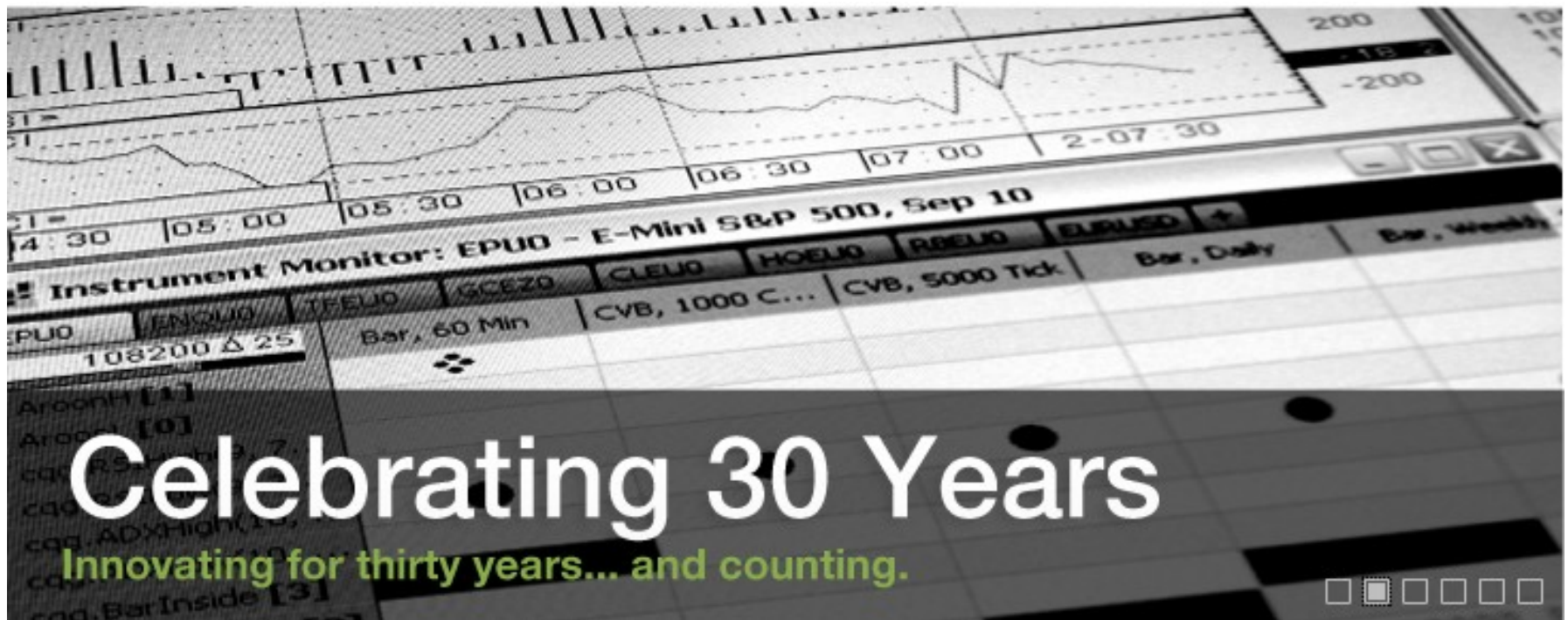
# How to Measure “Soft” Things?



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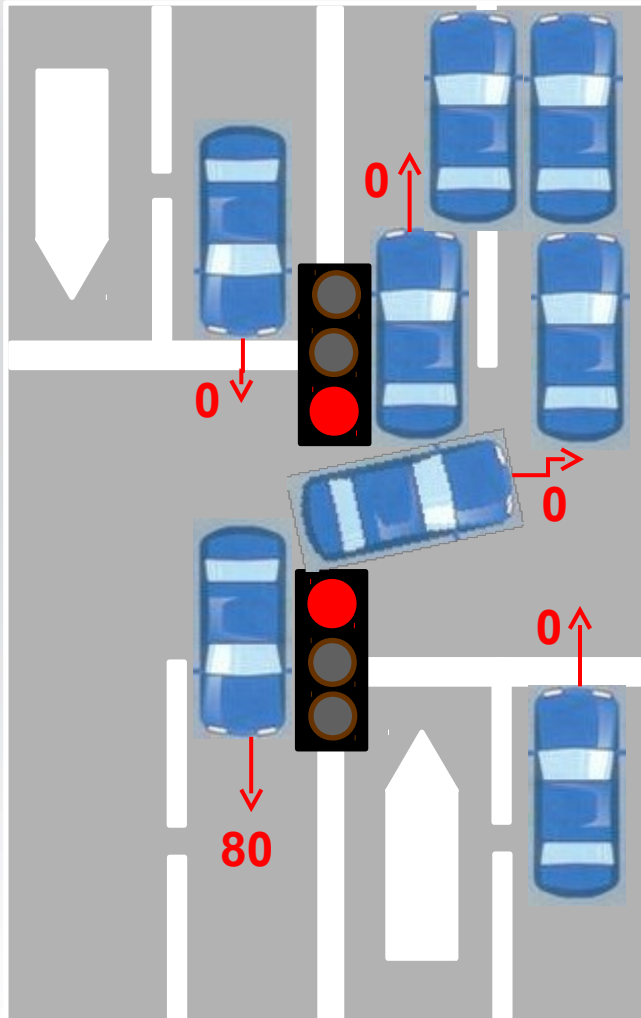
# CQG



**What impacts on the  
success of our software  
development?**

# Process Regulation

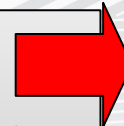
~~Processes~~



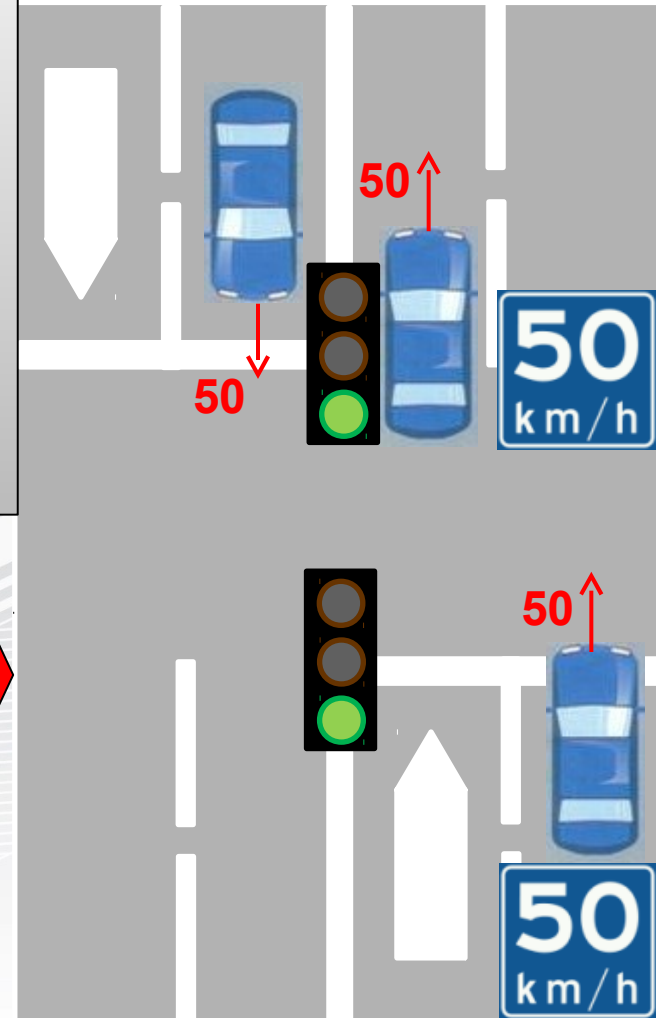
- One MAY sometimes get faster.
- No estimations.
- Hard to name the reason of a failure (delay, low quality, etc).



- Deliver IN TIME.
- Near to precise estimations.
- Clear picture of improvements.



Processes



# Adaptation of best practices from various process disciplines

**CQG  
Development  
Processes**

**PSP & TSP**  
*Best Practices*

**Agile**  
*Best Practices*

**Extreme  
Programming**  
*Best Practices*

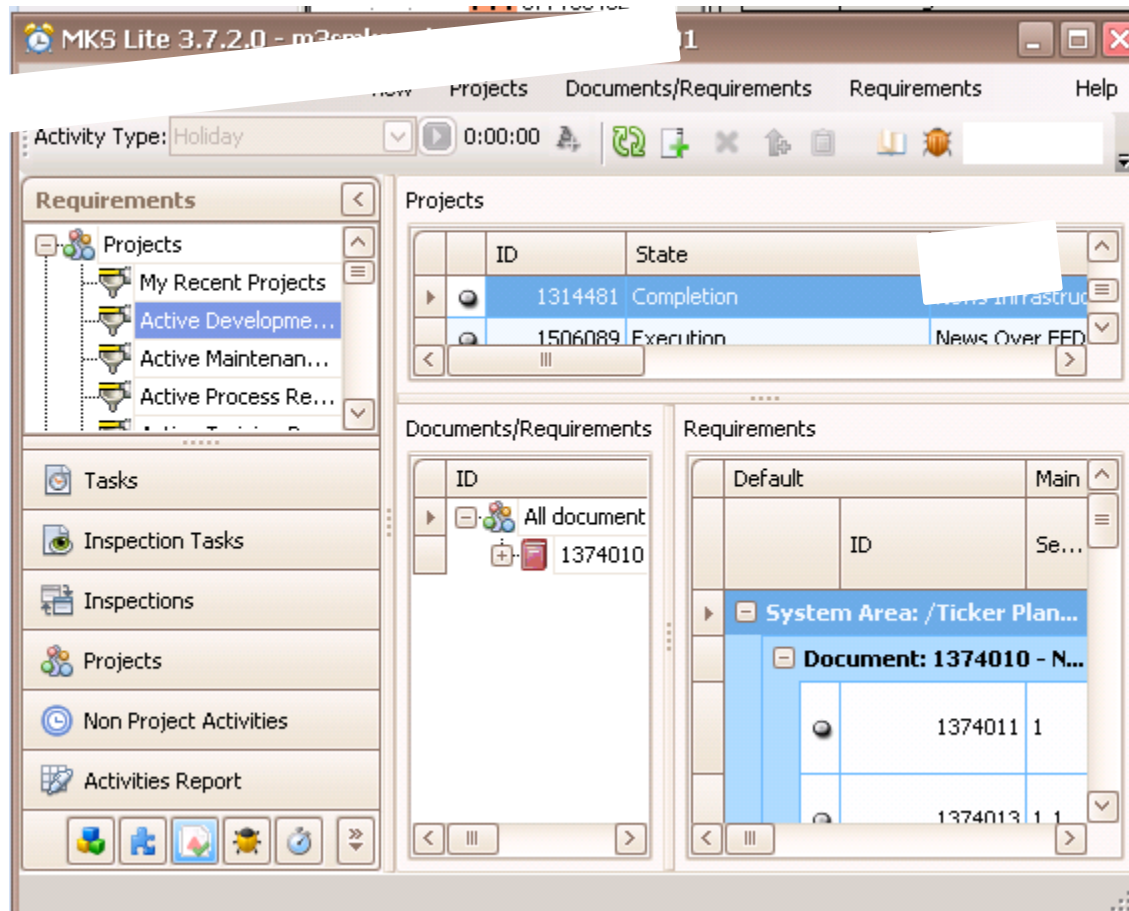
**Own Ideas &  
Improvements**

# Improvements and addition of own ideas based on experience and historical data

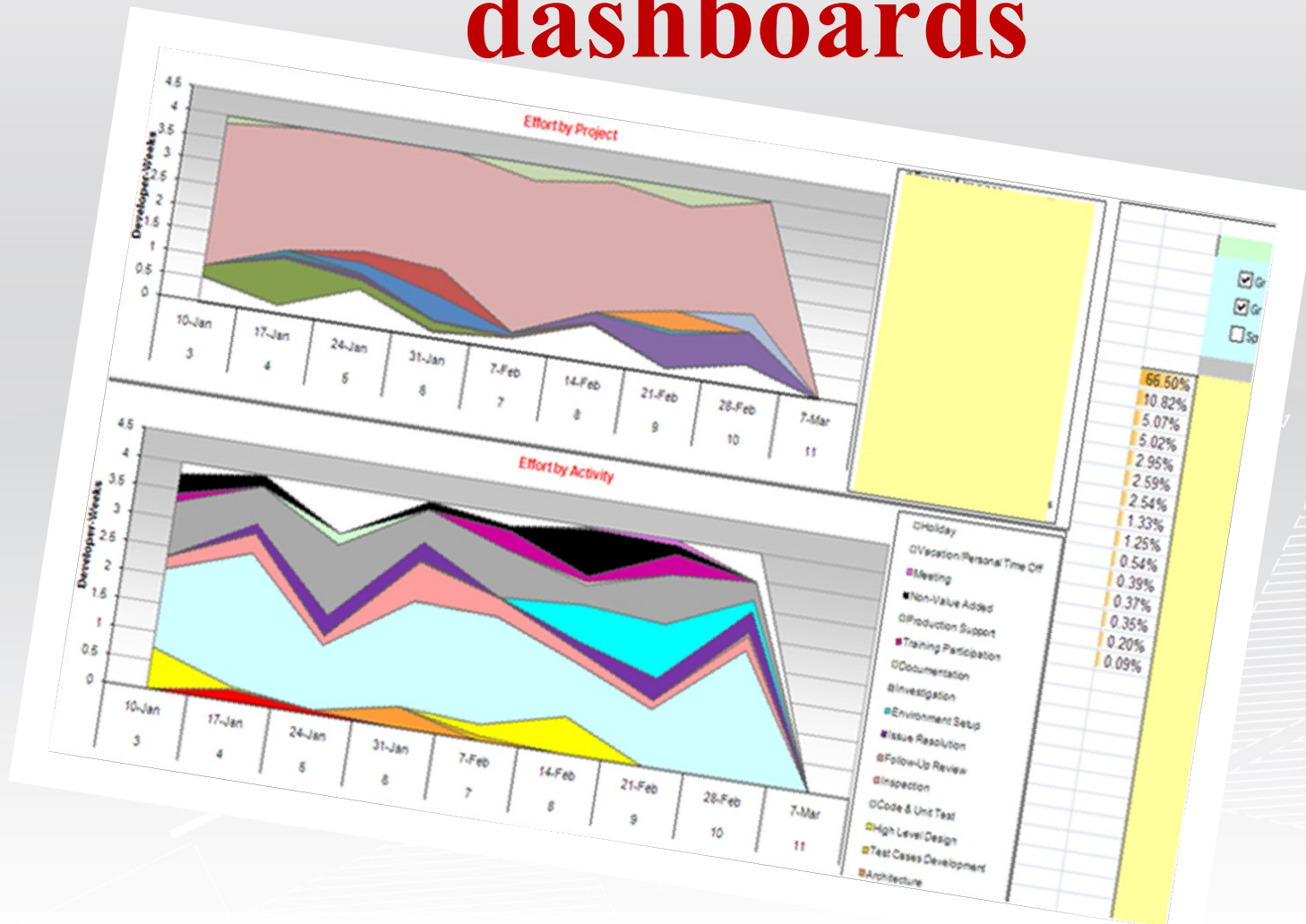




# Process support via set of tools



# Data visibility via set of dashboards





# Is this enough?

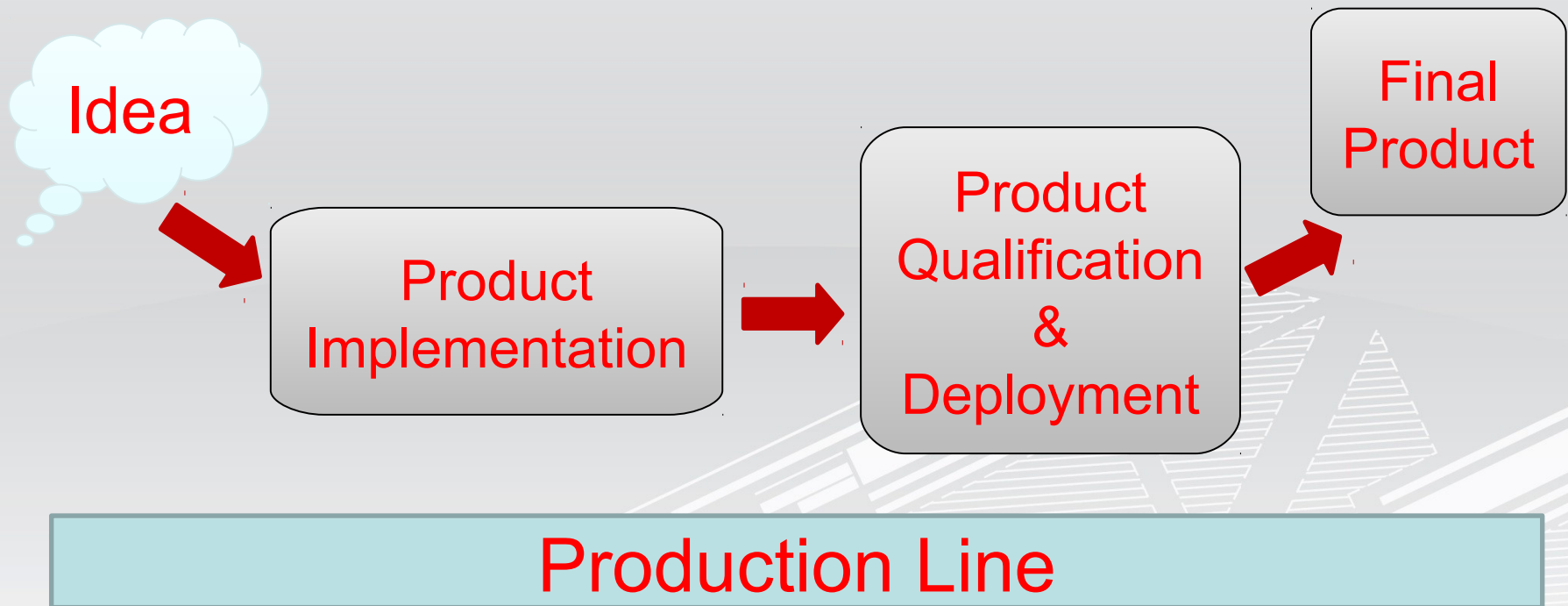


Lots of projects are stuck as soon as they get out of PD



# Why?

# It's not just PD!



# Any measurements?



**Product  
Implementation**

**Infrastructure  
QA, SCM, OPS**



# No planning



*Manager*

*How much  
will it take?*

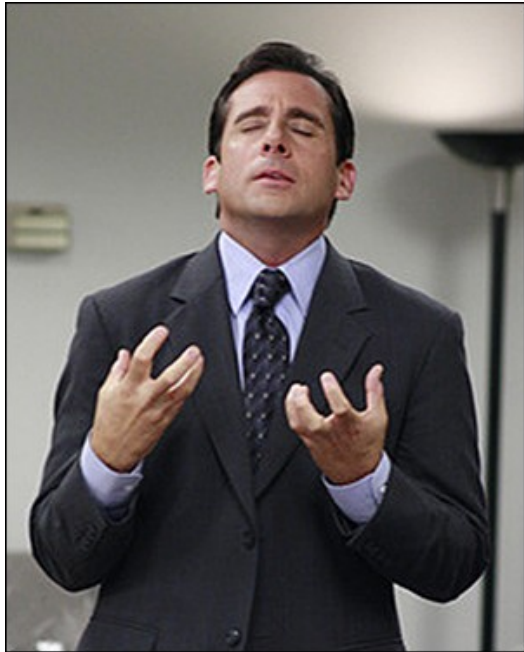
*2 months...  
I guess*



*Non-PD  
Employee*



# No grounding



*Non-PD  
Employee*

*I need more  
resources!*



*Oh, really?*



*Manager*

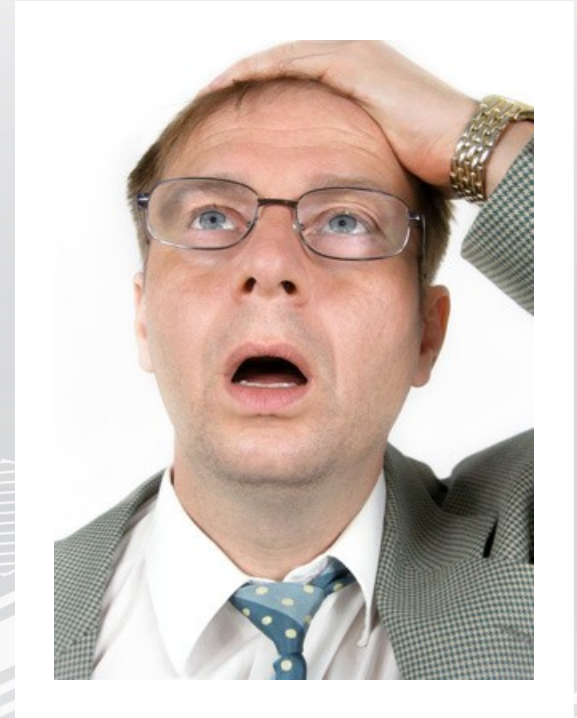
# No improvements



*Manager*

*Improvements?*

*There was a  
bad guy*



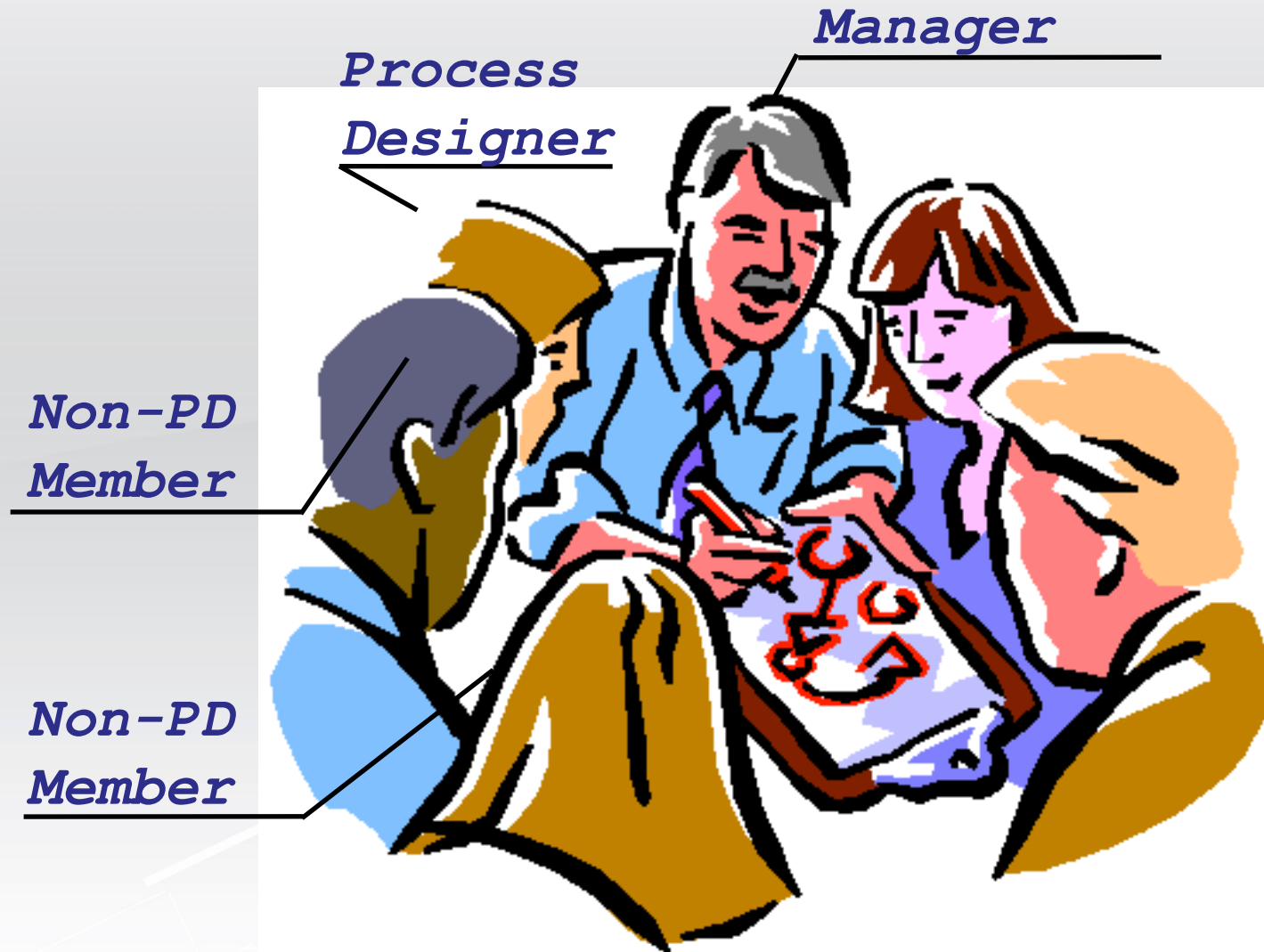
*Non-PD  
Employee*

# We need to track time!

**Can we apply best  
practices from PD?**

**YES!**

# Designing the process





**What projects are you  
working on?**

**What activities do you  
perform within each  
project?**

**How long and how often is  
an activity performed?**

# What outputs do you have?

# Activities out of a project scope?

**Can you describe your  
ordinary day?**





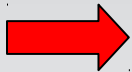
# People

Infrastructure  
Member



- Provides the whole information.
- Prepares all other team members.
- Ensures that processes correspond to the real state of things.
- Provides feedback on user-friendliness.
- Participates in pilot.

Infrastructure  
Manager



- Presents requirements.
- Ensures that solutions address real needs.
- Learns a lot of new things about his departments.

Process  
Designer

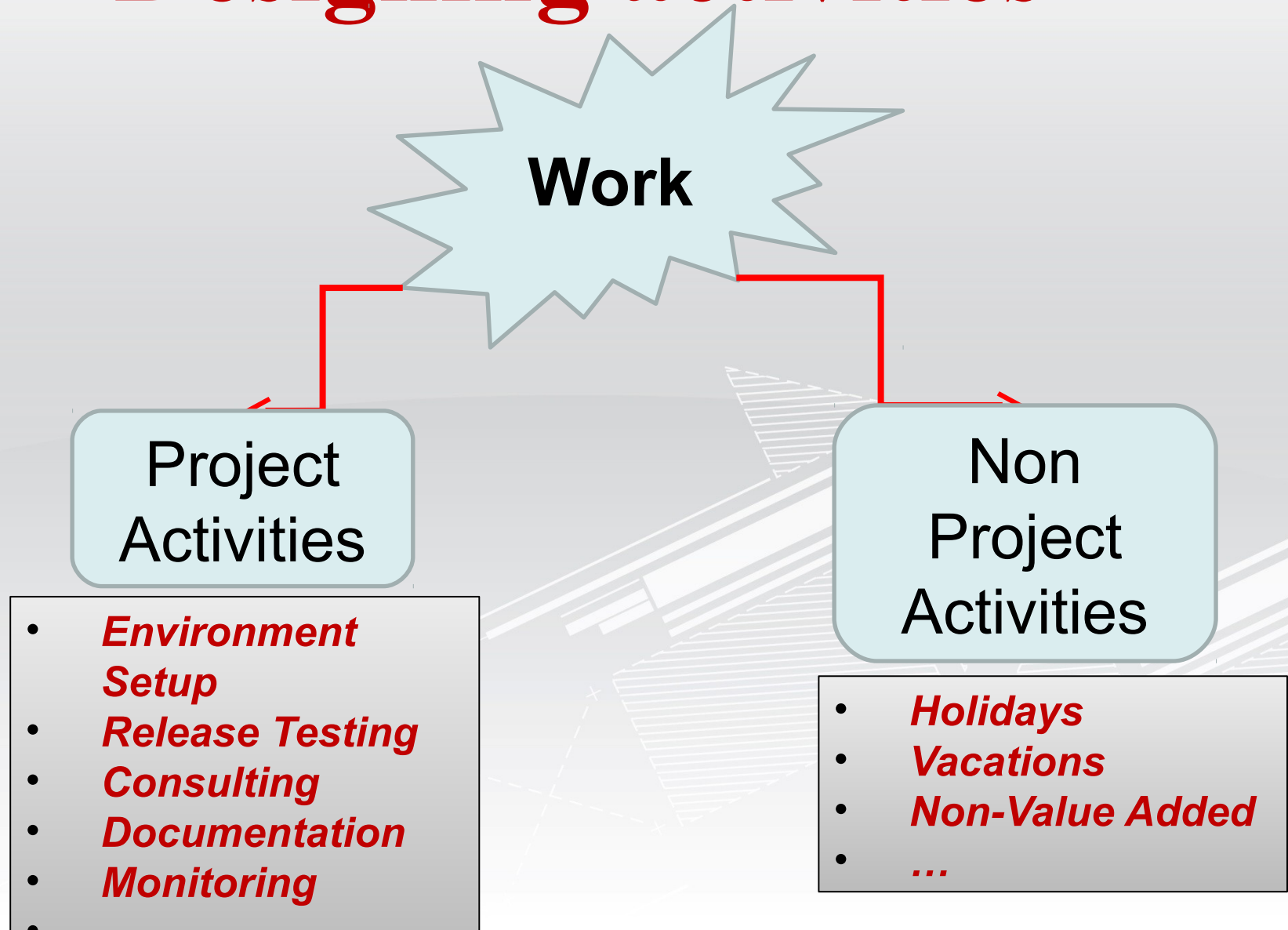


- Gathers the information and designs the process.
- Carries in the experience.
- Ensures that the discussion goes in the right direction and controls the flow of information.

# Benefits, already!

- Real showstoppers encountered during work are remembered and raised: communication, tools, etc.
- Formal definition of activities requires clear understanding of responsibilities.
- A lot of ideas on improvement of the actual work are presented.

# Designing activities



# Balance

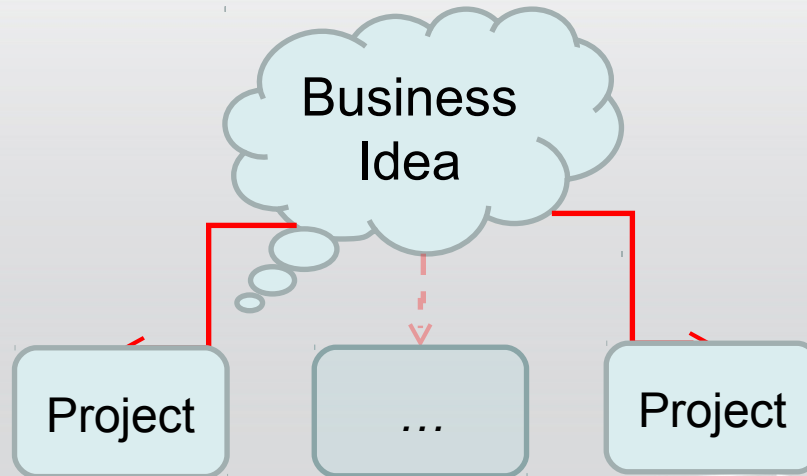
**Number  
of  
activities**



**Precise  
data**

**Harder to  
log**

# Logging time



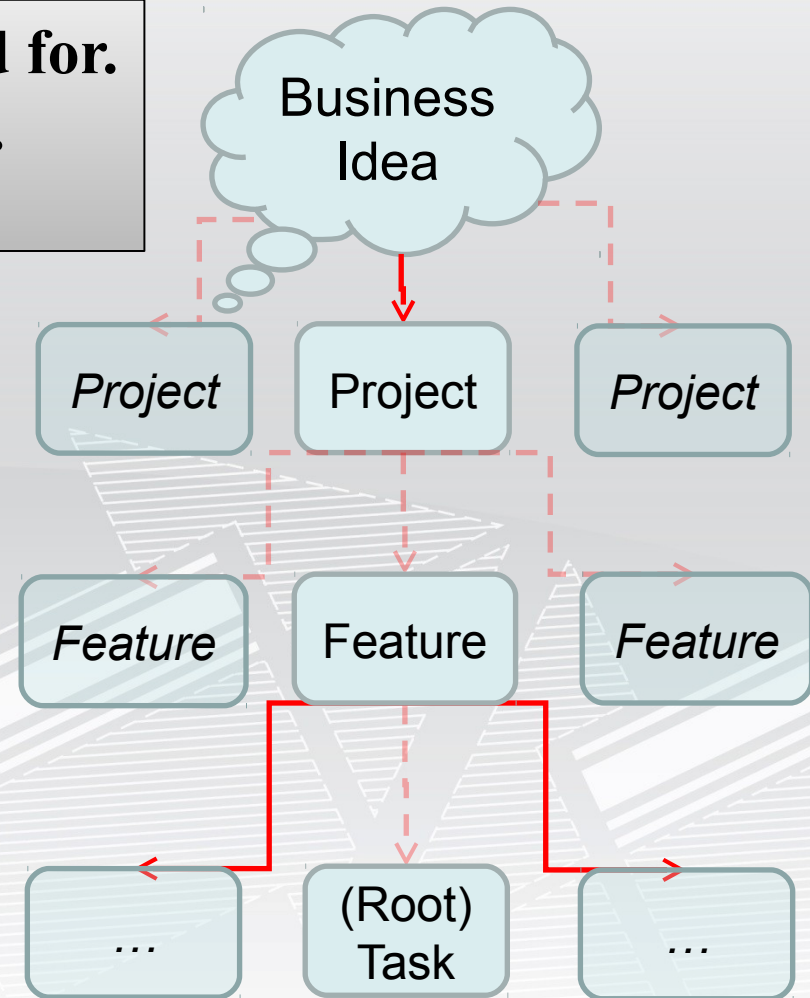
- Identify the project an activity is performed for.
- Select the appropriate activity type.
- Log the time for that activity (either with timer or post-factum)

# Tasks

- **Select the task activity is performed for.**
- **Select the appropriate activity type.**
- **Log the time for that activity**

Activity Type: Documentation   0:00:00 

*Tasks can act as an effective mechanism of planning and output reporting.*





# Visibility

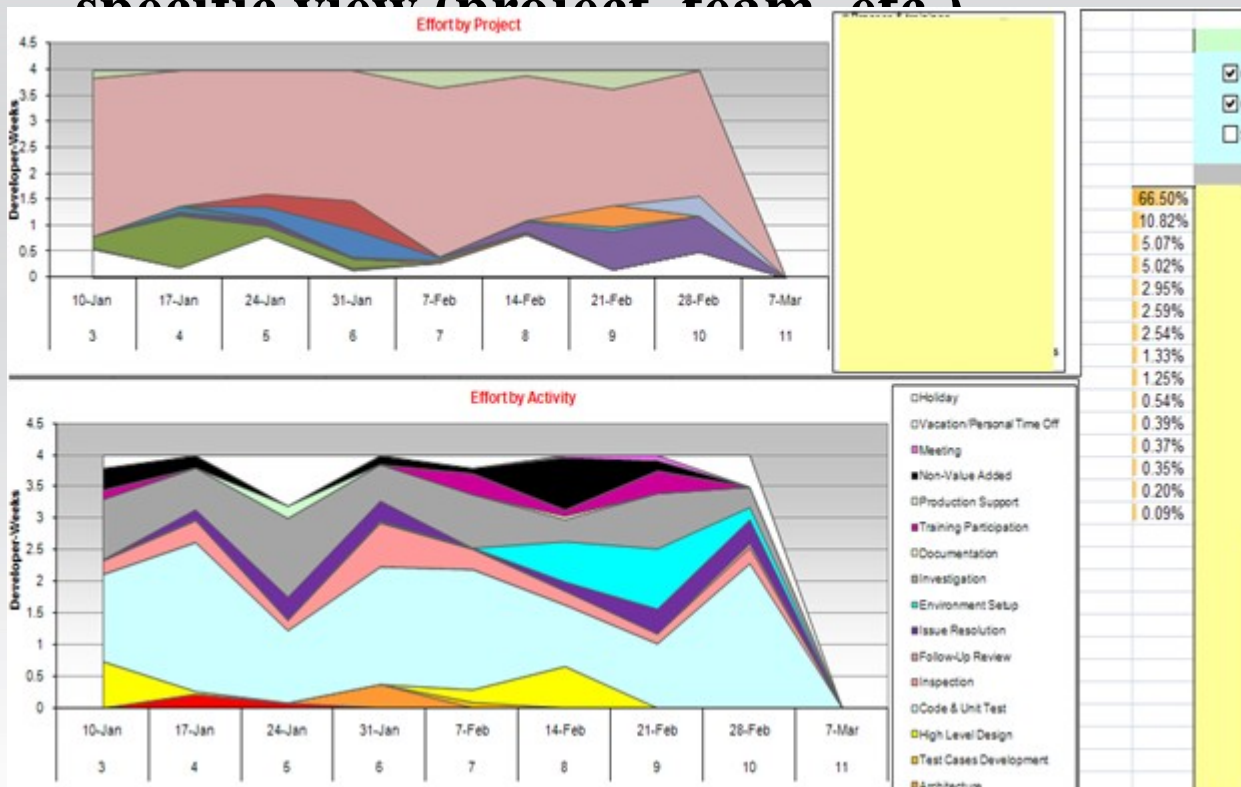
- Visibility is ensured by dashboards.
- A dashboard is designed to provide a

## Time distribution by projects

| Percentage | Projects      |
|------------|---------------|
| 37.76%     | Project A     |
| 24.55%     | Project B     |
| 10.15%     | Project C     |
| 27.54%     | Other Project |

## Time distribution by activities

| Percentage | Activities                  |
|------------|-----------------------------|
| 1.47%      | Coding                      |
| 0.31%      | Inspection                  |
| 0.15%      | Inspection Issue Resolution |
| 12.59%     | Consulting                  |
| 0.06%      | Investigation               |
| 7.74%      | Meetings                    |
| 0.69%      | Training Participation      |
| 0.28%      | Performance Management      |
| 1.22%      | Documentation               |
| 50.67%     | Release Testing             |
| 24.82%     | Vacations                   |



# Conclusions

# Time

*Time and resources, identified to be spent on side activities (even not mentioned before), were concentrated on primary objectives.*

# Planning

*The work of non-PD teams can be successfully planned within an iteration*

# Predictable Defect Density

*Due to differentiation of testing activities, we've started to understand the possible defect density for each testing activity.*

# Unclear Activities

*Several activities were identified to demand further investigation and speculation (e.g. Monitoring, Consulting, etc.)*

# Thank You!