

# Welcome to INOCOSE Get together

Eindhoven 20th April 2023



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## Wilhelm Claussen

- PhD in Chemistry and degree in Economics
- 26 years of experience in international team development in product and process development
- Fields of work: Service and manufacturing companies, creating electronic components, automotive and special machinery.
- Main focus: Team development, Project leadership for technical high integrated products;



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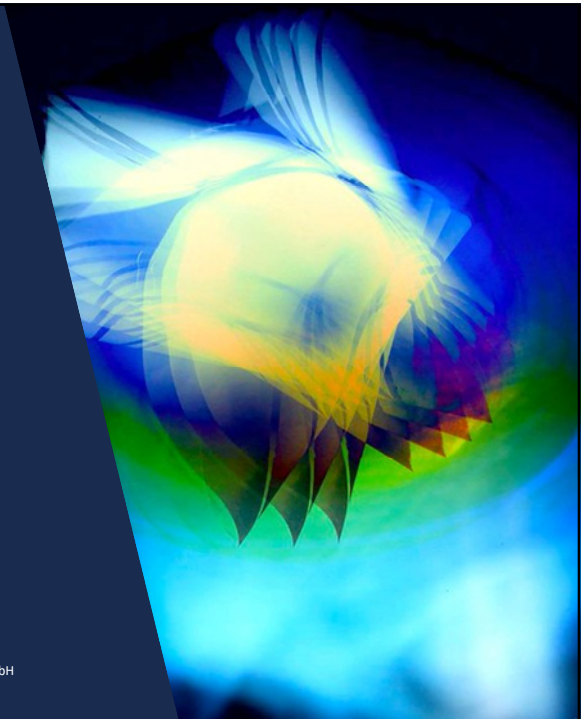
# System Architecture Projects

Caught between Structure and Creativity

Eindhoven 20th April 2023



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Without Creativity you will not find new solutions...

New solutions are making the difference in the market



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# How are we managing “becoming creative?”



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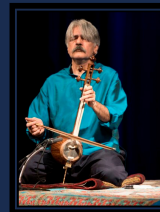
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## Creativity Concepts !

**Gestalt theory:**  
We perceive the world a whole as units and patterns only .



**Domain skill (ten-year rule):**  
It takes ten years of experience before true creative breakthroughs occur.



**Thinking process (top-down):**  
The more you already know of a topic, the easier it will be to store new information about it.



**Reusing existing ideas:**  
New ideas are almost always derived from older, existing ideas.



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# Gestalt Theory

According to a research at Cambridge University it doesn't matter in what order the letters in a word are, the only important thing is that the first and last letter are at the right place.

Our brain use pattern recognition rather than analysis when it interprets sensory input.



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# Gestalt Theory



Our brain use pattern recognition rather than analysis when it interprets sensory input.



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# Exercise Design teams



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# This is a Duck !



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# Creativity

... is about breaking through  
patterns and habits

How are we managing those who  
“became creative?”

# Creating checklists and development handbooks

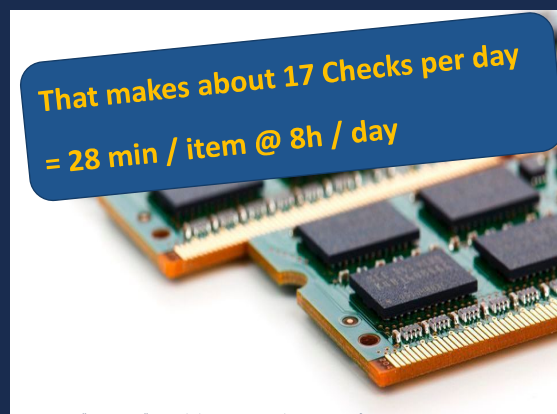


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## The Checklist & Handbook Disaster

- I was responsible to develop the 110nm technology predevelopment for a memory device
- My Checklist for M1 (Project Initiation) for the lead product had 1204 individual line items to be checked
- M1 complete was precondition for M2
- The scheduled time for M0 – M1 was 4 month (with the easter break) (= 74 WD)



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## The Checklist & Handbook Disaster

This is all I saw!

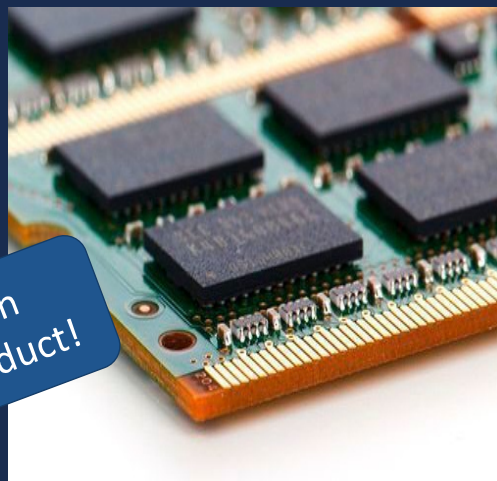


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## The Checklist & Handbook Disaster

This is what I should have seen!



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# Checklists will only help us just realize what we have thought before

These are old men!



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# Use a thinking process to consciously see



It's not what you look at that matters, it's what you see.  
Henry David Thoreau



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## Checklists are always created in the past

"If the only tool you have is a hammer, it is tempting to treat everything as if it were a nail"

Abraham Maslow (1966)



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OK, Thank you Mr. Claussen...

... so, but now what IS solving the issue?

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# About Project Leadership...



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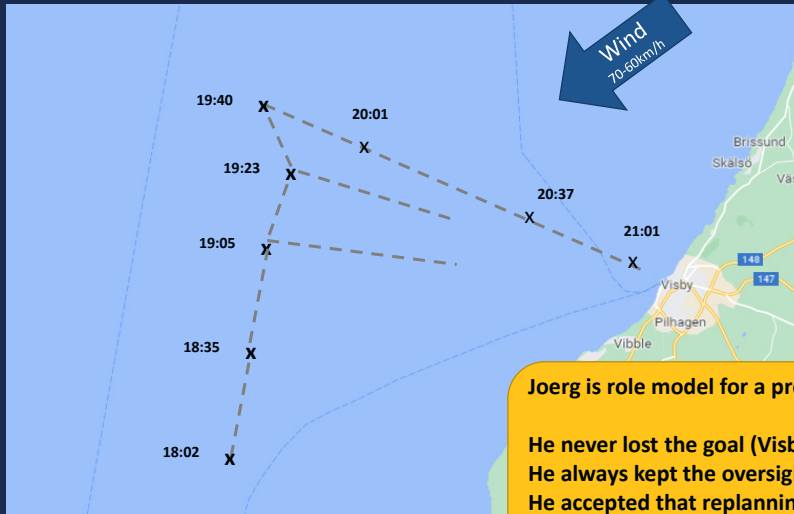


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A dark blue slide with a white title "About Project Leadership..." at the top. Below the title is a photograph of a sailboat on the ocean, with white waves crashing against the hull. The sky is blue with some clouds. In the bottom left corner, the SYSMANO logo is displayed. In the bottom center, the text "© 2023 • SYSMANO GmbH" is visible. In the bottom right corner, the number "22" is present.

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## Sailing in the storm with Joerg...



Joerg is role model for a project leader:

He never lost the goal (Visby) out of sight  
 He always kept the oversight about the situation  
 He accepted that replanning is a fact of life

From him only the goal counted: getting into the harbor



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## About Project Leadership...

The way behind you  
 does not matter...  
 ...only the goal does!

You may be on the  
 wrong course,  
 but you shall never be  
 out of control...



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# We are constantly forced to make decisions

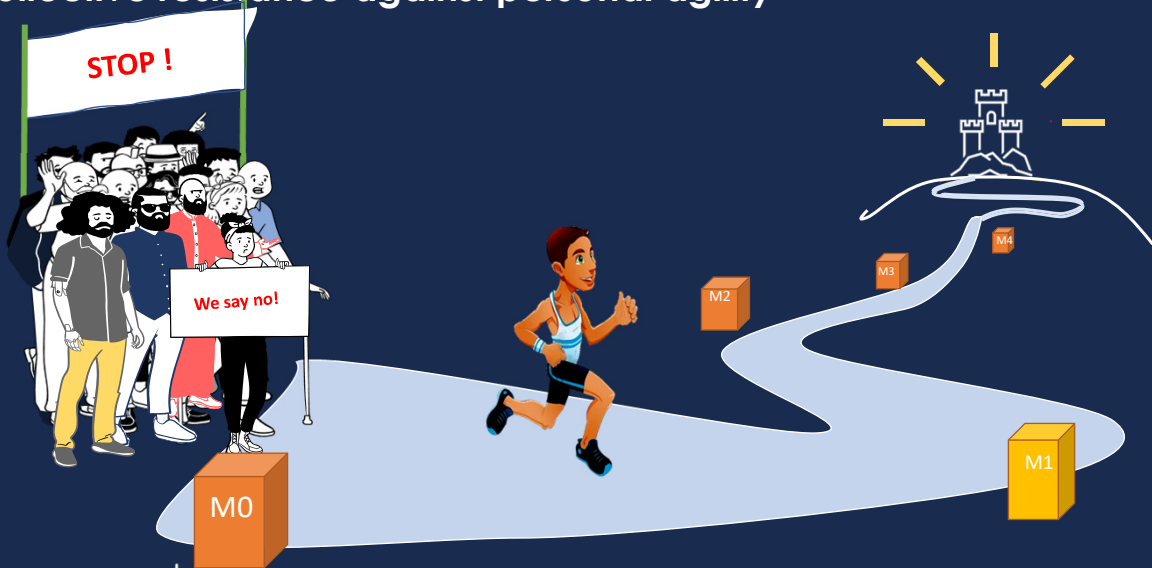
Decisions means change...



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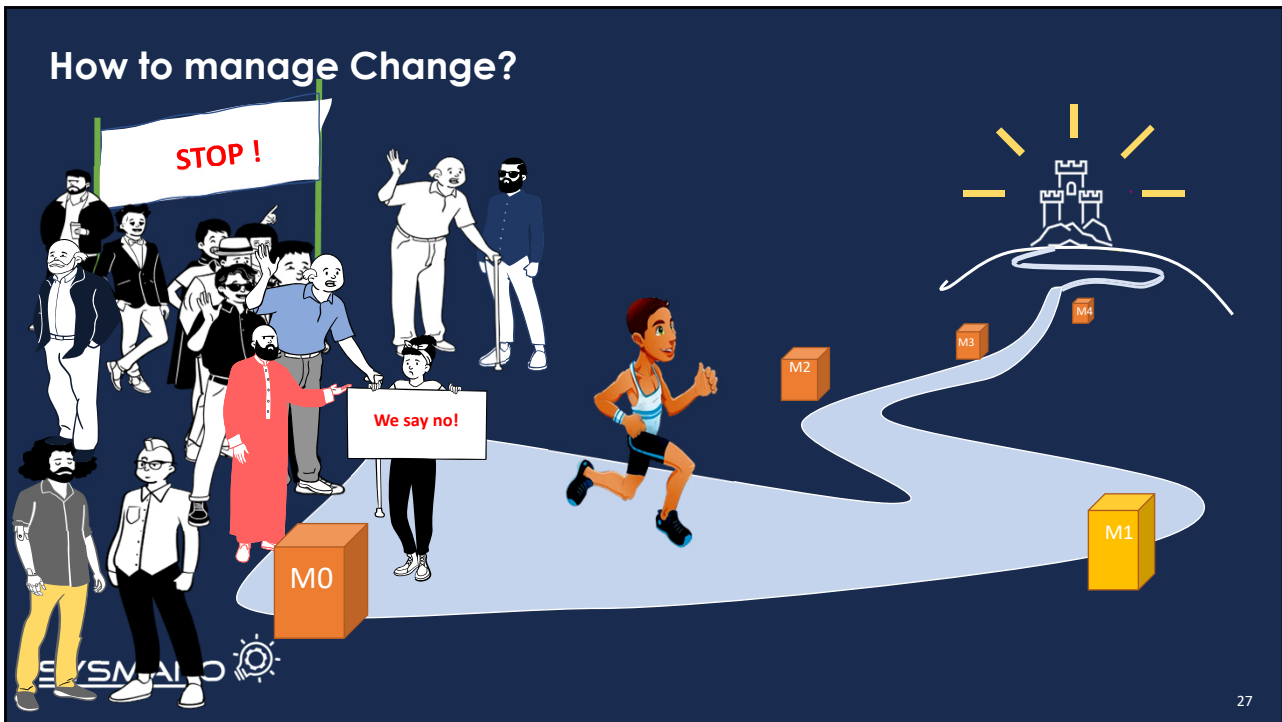
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# Collective resistance against personal agility



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**When the leadership does not transmit goal of the Project consistent and conclusive....**

**.... structure and process fidelity morph into well-organized organizational cowardice and lac of commitment**

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# leading

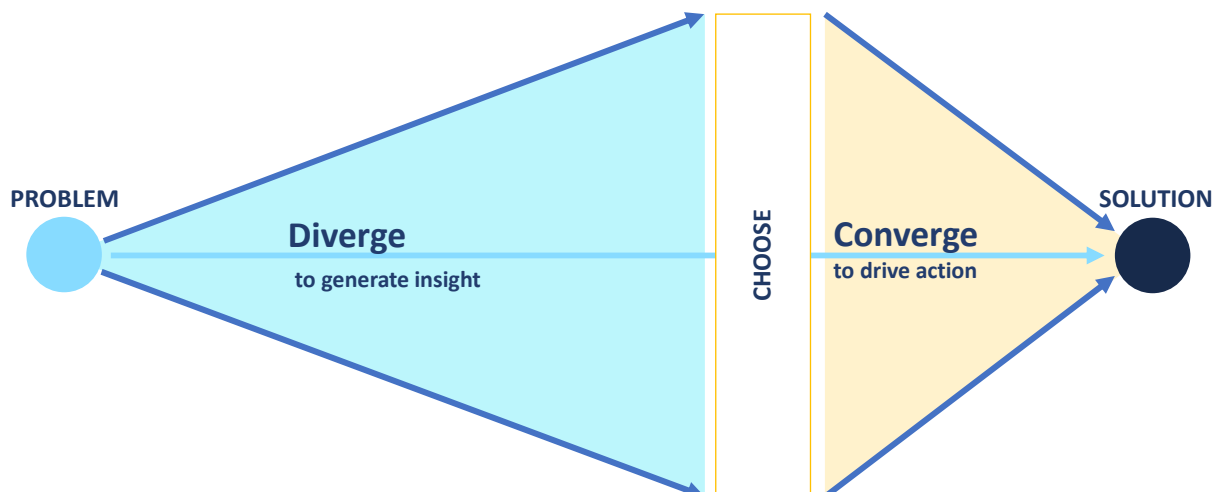
How are we ~~managing~~ those who  
“became creative”?



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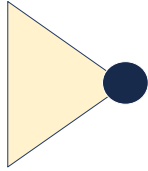
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## How do we solve a problem creative ?



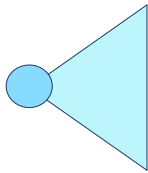
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## What is convergent and divergent thinking?



### Convergent thinking

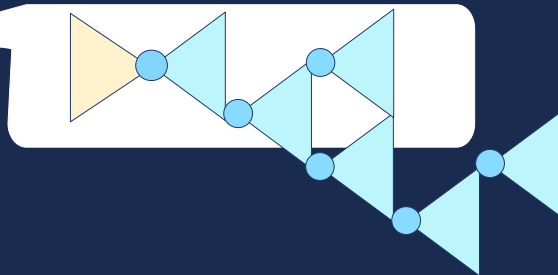
Purposeful thinking that **assumes a problem has a (probable) cause**. The focus is on **pragmatic solutions derived by logical sequences**.



### Divergent thinking

Starts from an initial point **generating new ideas**. The focus is on constructing new solutions to a problem **without applying traditional patterns**.

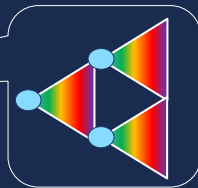
## What do I have to look for as leader....



Creative thinking may lead to unexpected results – this makes us feel confused!



# What do I have to look for as leader....



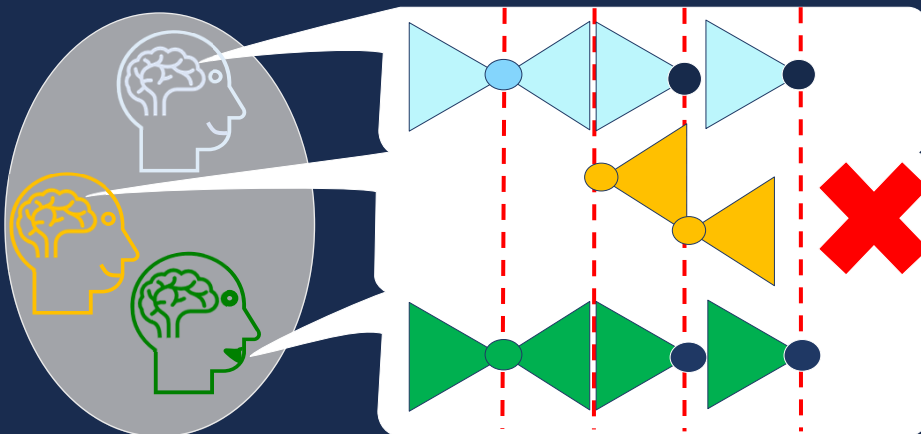
Follow my command!



Creative thinking can create perception of "loss of control" in hierarchical structures!

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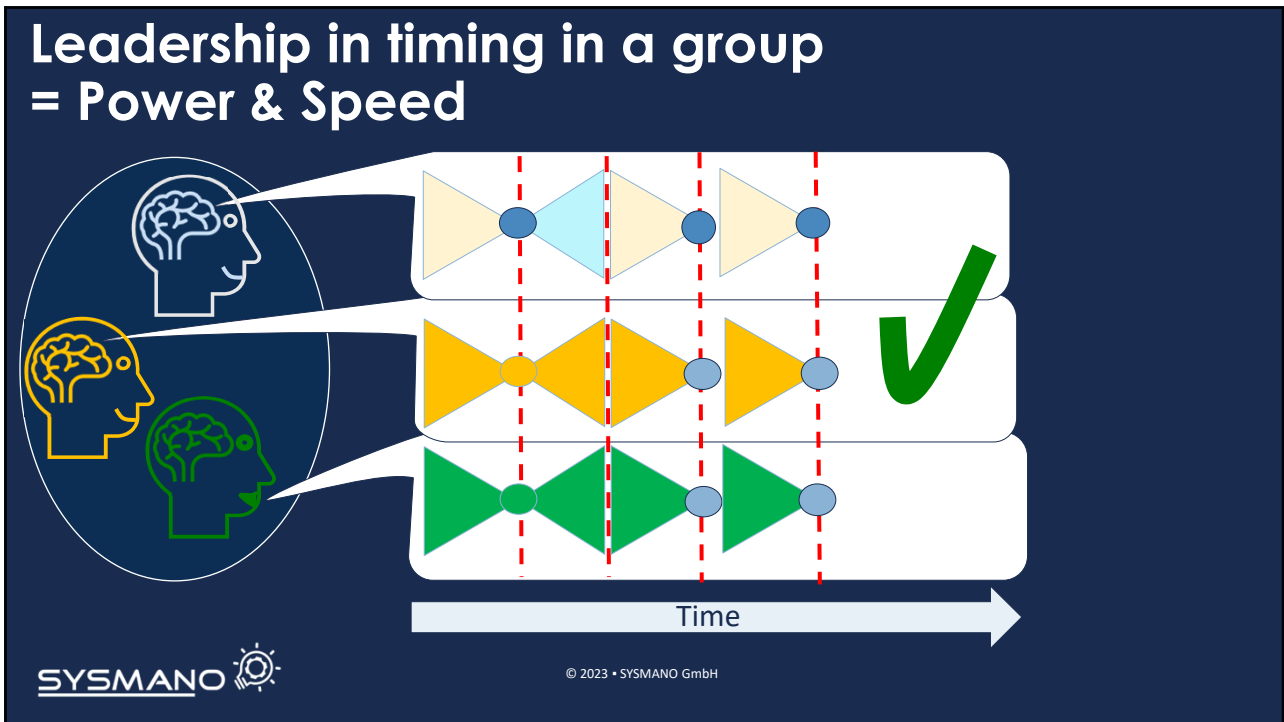
# What do I have to look for as leader ?



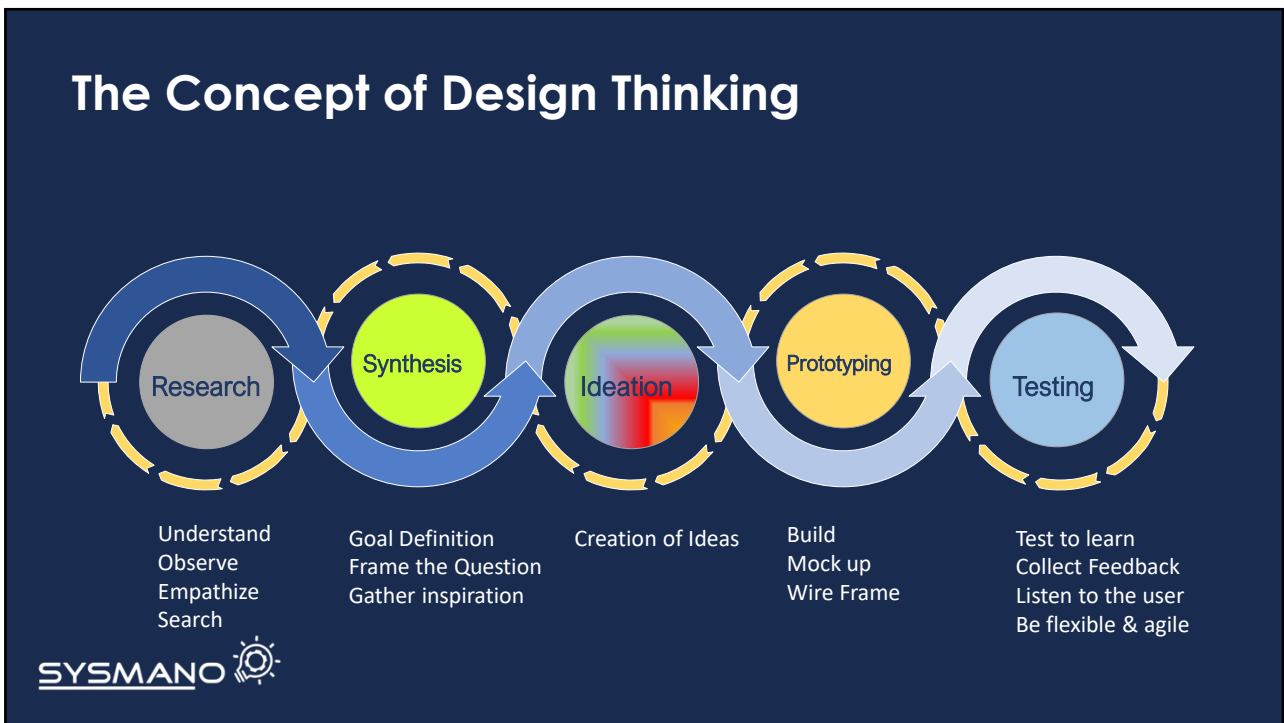
Creative thinking with the wrong timing will disturb the progress of the group.



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## Summary

- In the fast-changing environment of new products the initiation phase of the project is key to success
- Checklists & handbooks are looking into the past
- Set up the project and system structure up as flexible as possible
- Embrace the creativity of your Co-Workers by planning for change
- Enable fast communication to ensure adherence to the goal
- Create a heartbeat of change
- Test, intervene and communicate early!



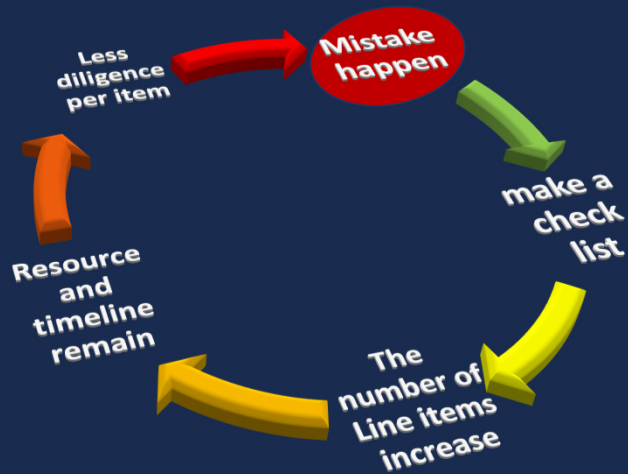
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Thank You very much for your attention!



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# Hells Kitchens Development Circle



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Stakeholder



Project leader



Team Member (s)



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