

# Intelligent Engineering & Project Management (IEPM)

**- save time and reduce costs -**

**Dipl.-Ing. Malte V. Scherner**

# Agenda

**About the speaker**

**About the company**

**IEPM:**

**Problem Description**

**Philosophy**

**Way of working**

**Advantages**

**Requirements**

**Examples**

**Summary**

## About the speaker

**Surname: Scherner**

**First name: Malte V.**

**Position: Co-Owner and Managing Director**

**Born in Hamburg, Germany**

**Grew up in Cape Town, South Africa**

**Studied Aeronautical Engineering in Hamburg, Germany**

**Project Engineer in Automotive and Aerospace companies**

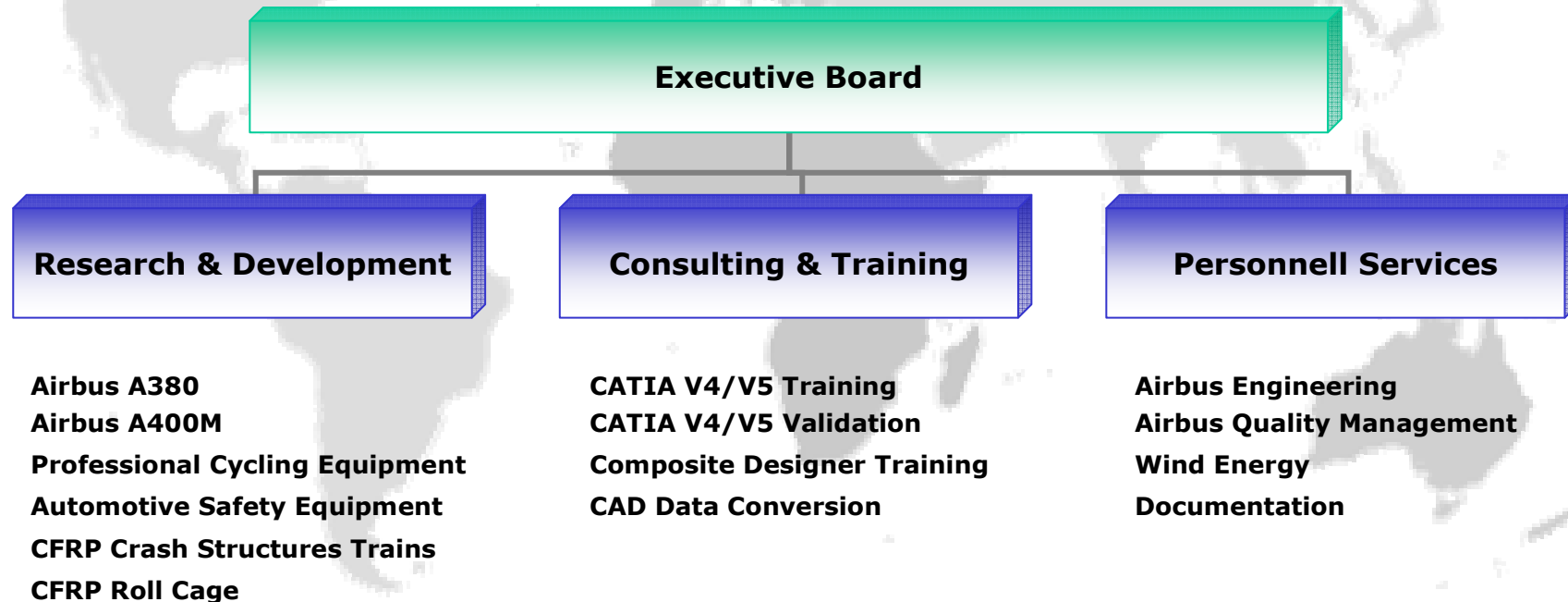
**2000: foundation of ikarus solutions GmbH, Hamburg**

**2005: foundation of emporelli GmbH, Hamburg**

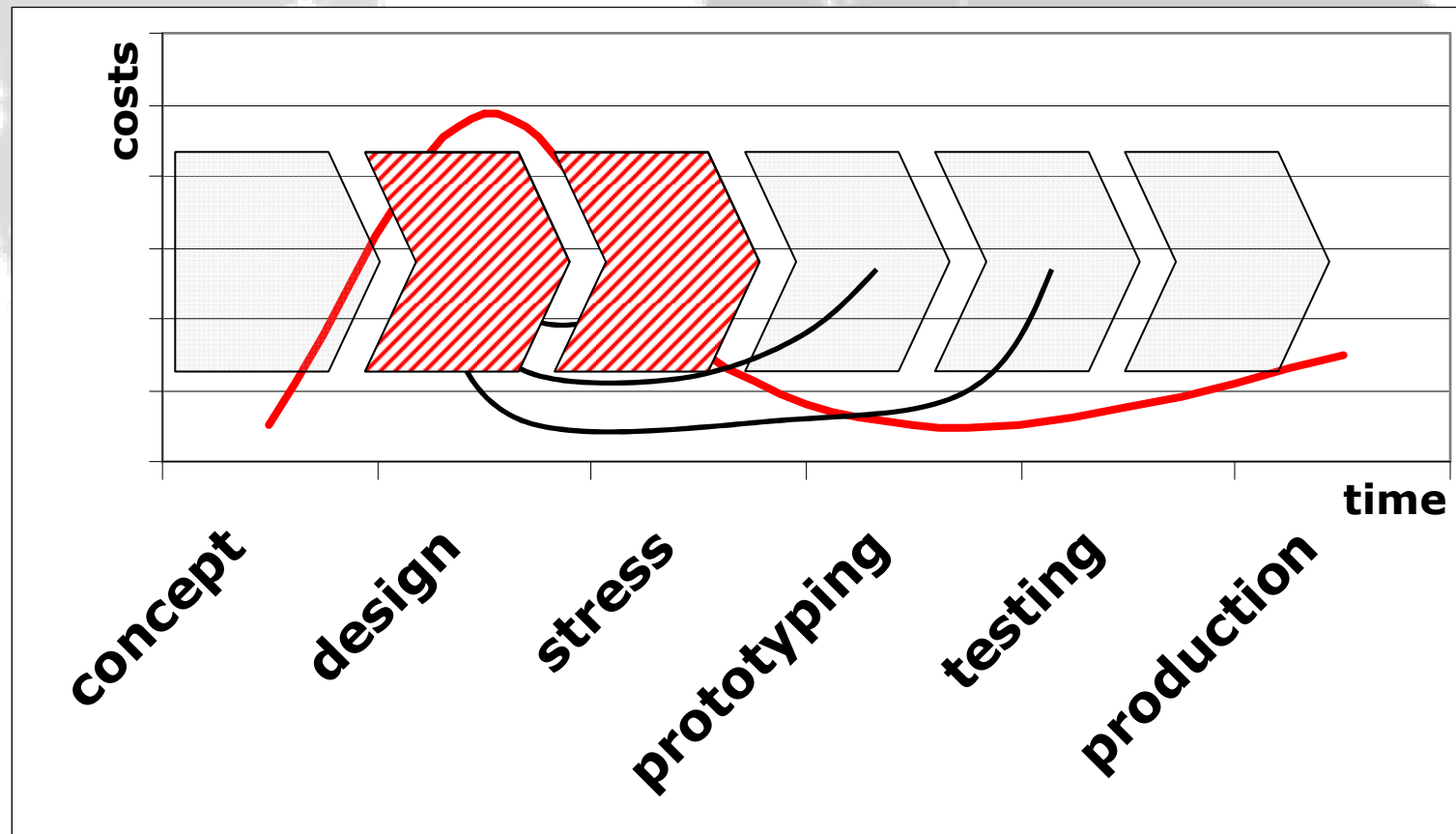
# About the company

**full-service engineering services provider**

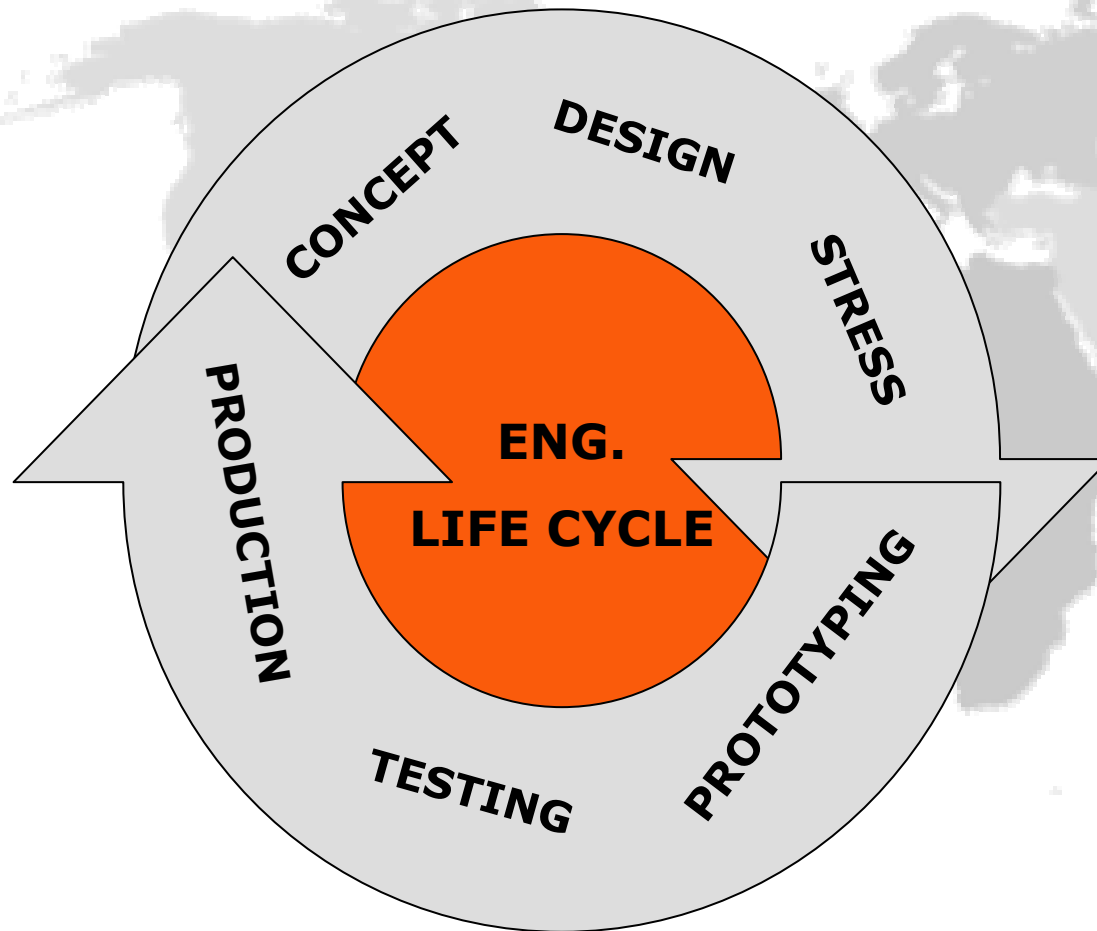
**- specialized in fibre reinforced plastic products -**



## IEPM: Problem Description



## IEPM: Philosophy



**“Why make it complicated when it could be simple?”**

**+**

**“What is necessary? What is nice?”**

---

**“Engineering would be easy if no engineers would be involved.”**

# IEPM: Way of Working

## Concept Phase

- differentiate between nice and necessary
- commit yourself to what is necessary

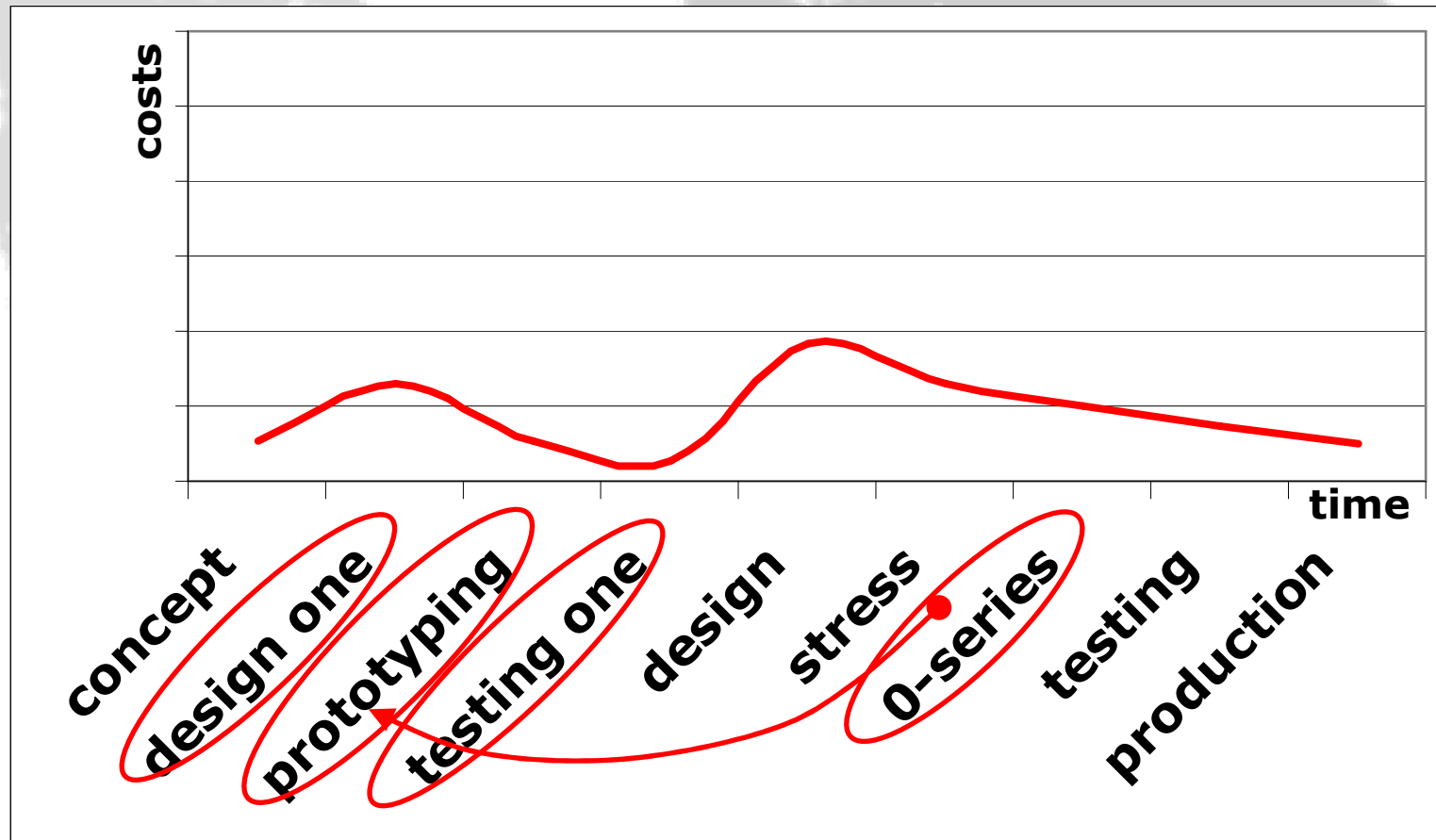
## Design Phase

- no details before function has been proven
- commit yourself to what is necessary

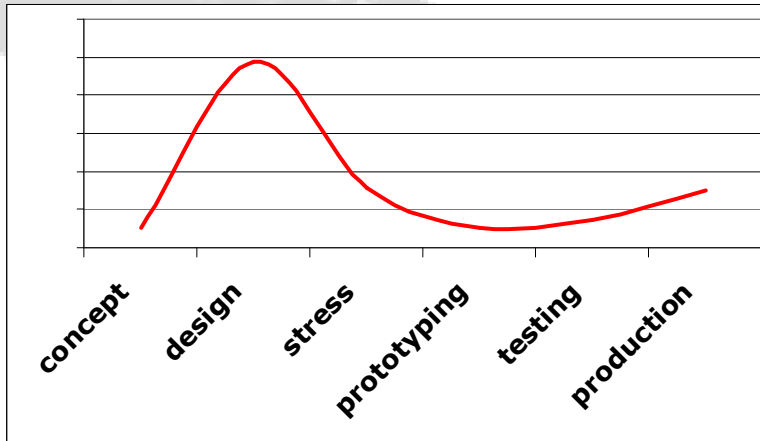
## Stress Phase

- define the necessary load cases properly
- commit yourself to what is necessary

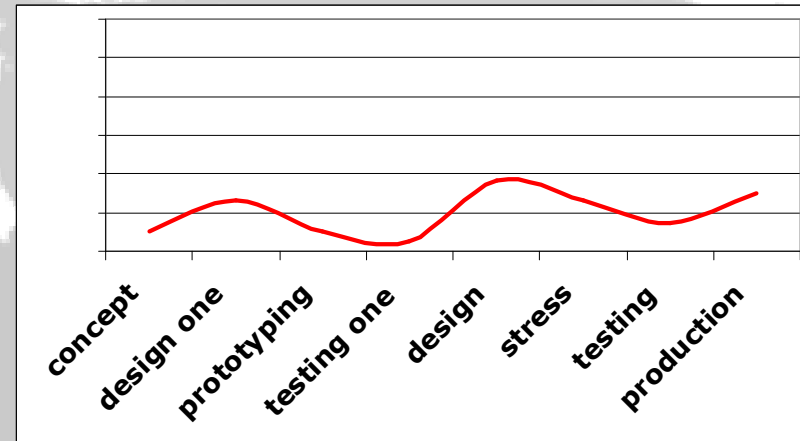
# IEPM: Way of Working



# IEPM: Advantages



Life cycle without IEPM



Life cycle with IEPM

- **cost reduction of 18%**
- **time saving of 23%**
- **more employee responsibilities**

## IEPM: Requirements

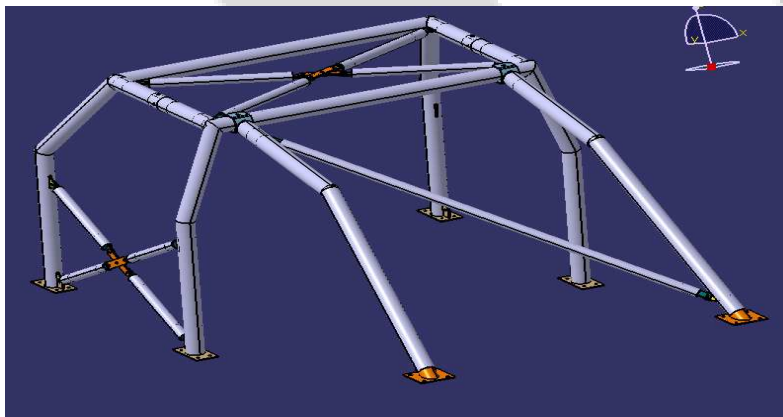
- **experienced team or at least team leader**
- **good quality management**
- **prototyping and testing facilities "next door"**

## IEPM: Examples



### CFRP bottle cage - cycling

- project status: finished
- project result:
  - lightest in the world
  - unique functionality



### CFRP roll cage : automotive

- project status: prototype
- project goals:
  - FIA regulations conformity
  - lightweight

## Summary

**When designing CFRP parts involving extensive production experience and engineering skills, a comprehensive work approach leads to a ~20% time and cost saving.**

- **concentrate on the necessities**
- **prove functionality as soon as possible**
- **transfer into final design for production purposes only**

# THANK YOU

**Booth 2012 - ikarus solutions GmbH**

**ikarus solutions GmbH  
Warnstedtstr. 28-32  
22525 Hamburg  
Germany**

**info@ikarus-solutions.de  
<http://www.ikarus-solutions.de>**