

Programme Overview

- Three parallel courses: **IPDI** + **TMPDI** + **PDP**
- **IPDI** – Introduction to Product Design and Innovation 2 CR / 4 ECTS
 - 90 minute lectures, on Wed at 3:30PM–5:00PM
 - Product Development Theory
 - COMPLETION & EVALUATION: Weekly Assignments
- **TMPDI** – Tools and Methods for Product Design and Innovation
 - 150 minute lectures, on Tue; Tools & Methods
 - COMPLETION & EVALUATION: Weekly Exercises
- **PDP** – Product Development Project (Oct 13th–Jun 7th)
 - Completed in teams of 6–10 students 2 + 2 CR / 5 + 5 ECTS
 - Product Development Practice
 - Projects introduced on Oct 13th
 - COMPLETION & EVALUATION: Deliverables & Presentations Dec 17th
- COURSE BOOK: Ulrich&Eppinger: *Product Design and Development, 4th ed*
 - Can be purchased for 40€ from Course Assistant



Introduction to Product Design and Innovation

September 17th, 2014

Introduction to Product Design and Innovation

- 10 lectures, 90 minutes each, Wednesdays at 3:30PM–5PM
 0. Introduction
 1. Innovation Process Models
 2. Idea & Concept Generation
 3. Concept Evaluation & Development
 4. Internal & External Communication
 5. System Level & Detail Design & Design for X
 6. Customer & User Needs Assessment
 7. Market Research & Benchmarking
 8. Prototyping and Testing
 9. Review
 10. (Exam)
- COURSE BOOK: Ulrich & Eppinger: *Product Design and Development*
- COMPLETION & EVALUATION: Weekly Assignments



PRODUCT DESIGN AS WE SEE IT

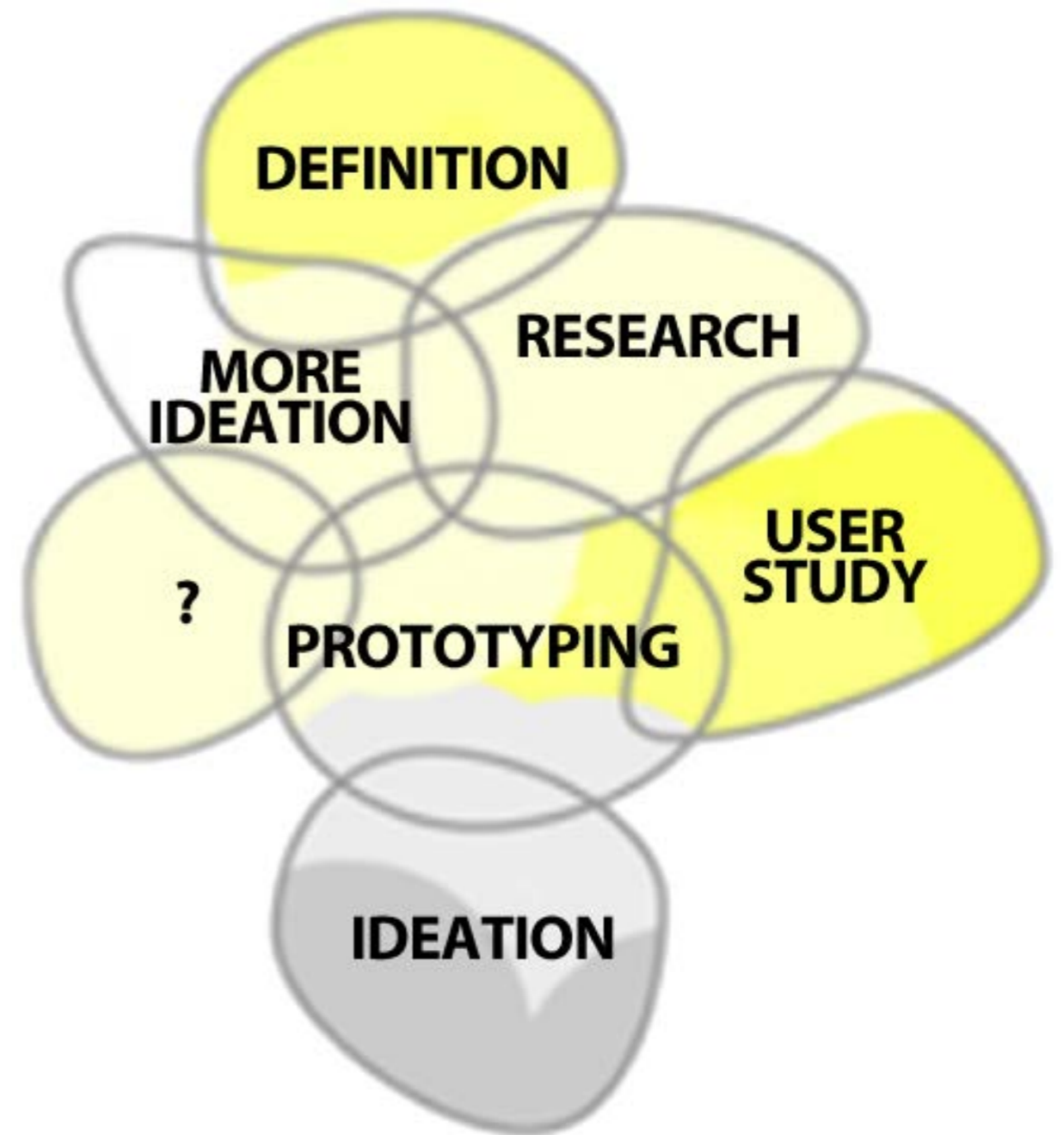
Product design is non-linear!

Prototype everything

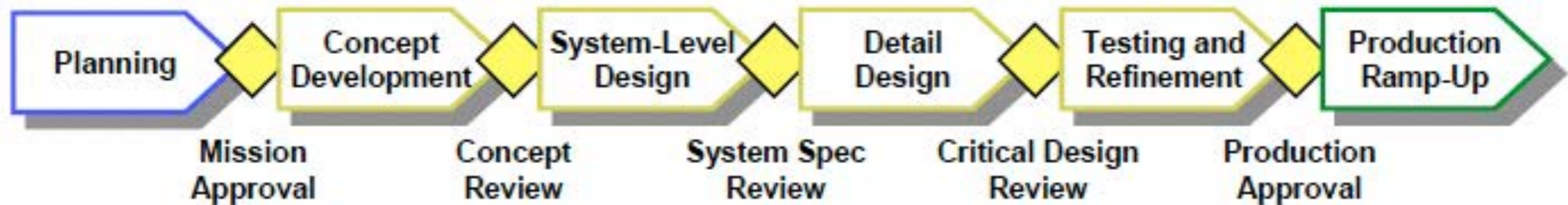
Focus on the problem

...not the process

Build on ideas



General PDI Process



- Everything starts with Planning
 - Analysis, Mission Statement, Break Down, Gantt
 - Project Plan
- Not every project leads to a product

A Linear Process

GLENNZ

...Commonly builds on one idea
...is necessary ...eventually
...is good for execution



Planning



Concept
Development



System-Level
Design



Detail
Design

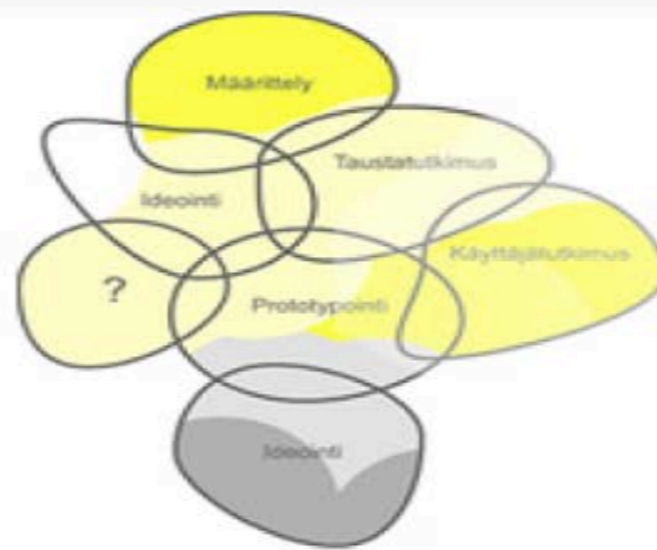
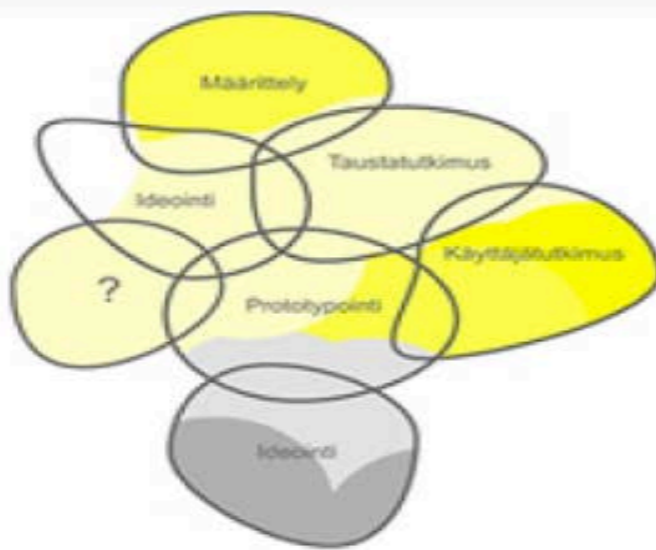
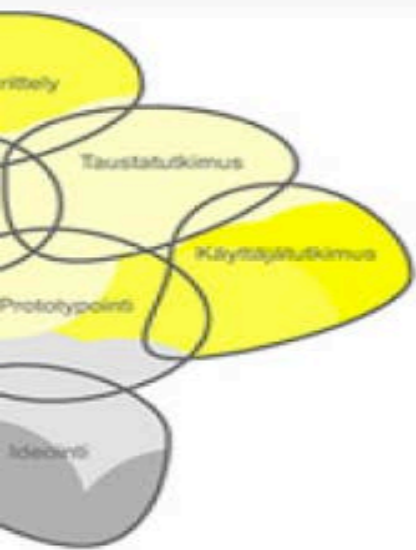


Testing and
Refinement



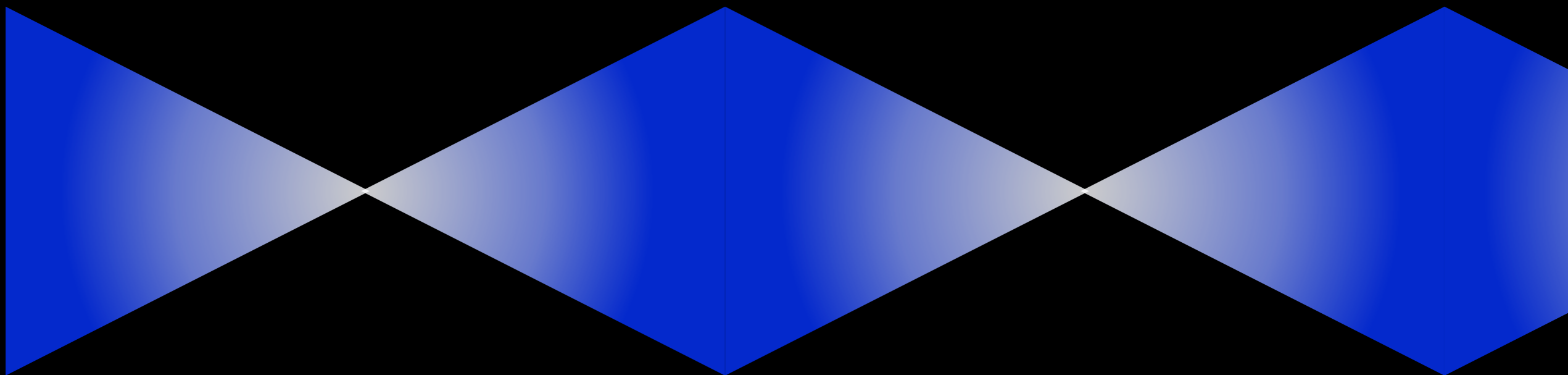
Production
Ramp-Up

Non-linear Process



Double X

- PDI Process is cyclic and iterative by nature
- Convergent $>$ (analytical) and Divergent $<$ (creative) phases require different tools and approaches



Analyze &
crystallize the
problem

Generate
solution
concepts

Screen &
select the best
concepts

Design details
for selected
concepts Etc.

Teaching Staff

Registration & Assignments:

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