



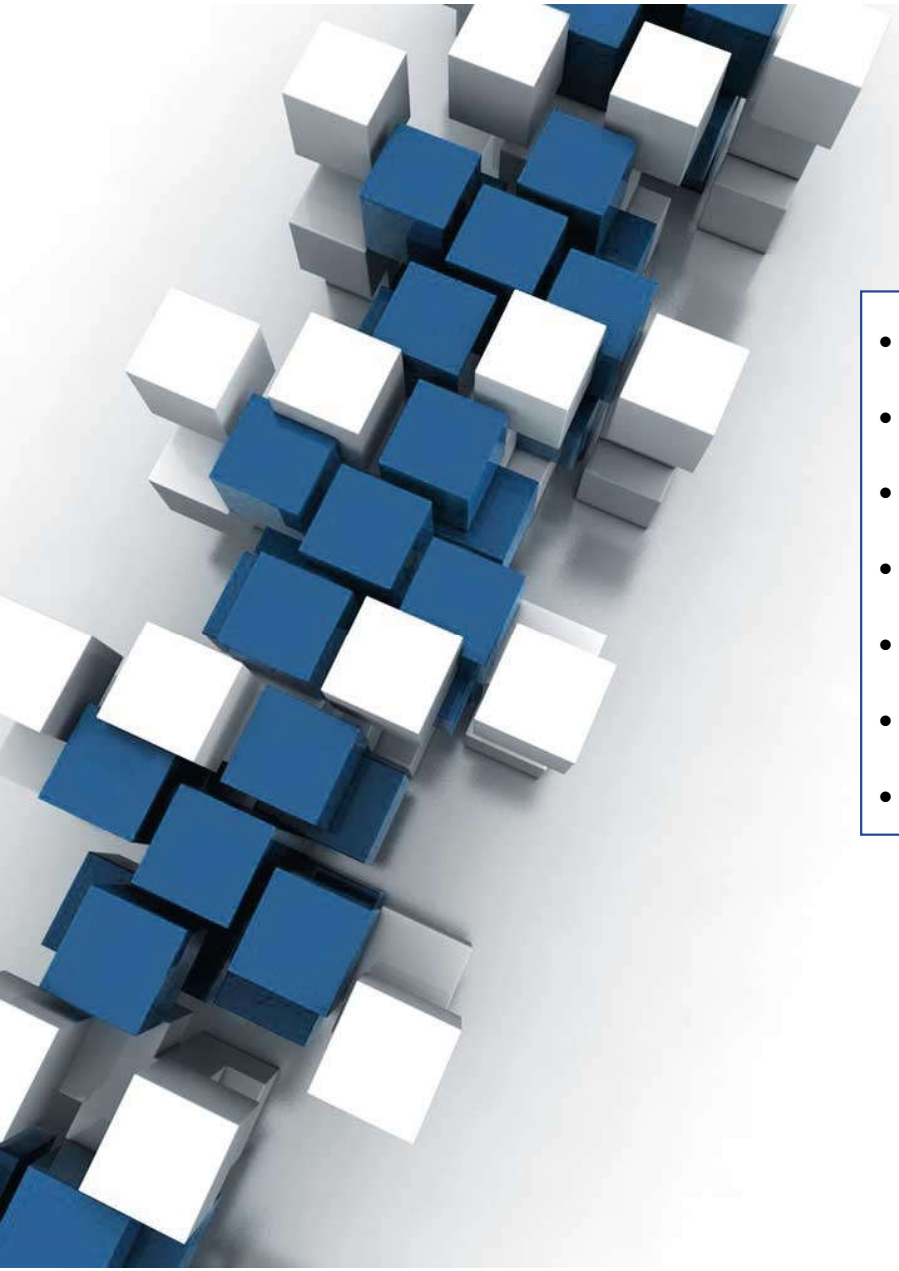
IDE PRODUK

MANAJEMEN PENATAAN PRODUK
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Exploring sources for new ideas

New ideas are the fuel that keep an organization from stagnating. Luckily, many sources can help generate new ideas. Looking both inside and outside the organization can help you discover a plethora of possibilities.



- Existing customers
- Existing products
- Demographic changes
- Unexpected occurrences
- Technology shifts
- Process or other inefficiencies
- Large-scale trends



What Are Specifications?

Product specs spell out in precise, measurable detail what the product has to do. Product specifications tell the team how to address the customer needs.

For example:

customer need: “the suspension is easy to install”

corresponding specification might be: “ the average time to assemble the fork to the frame is less than 75 seconds.”



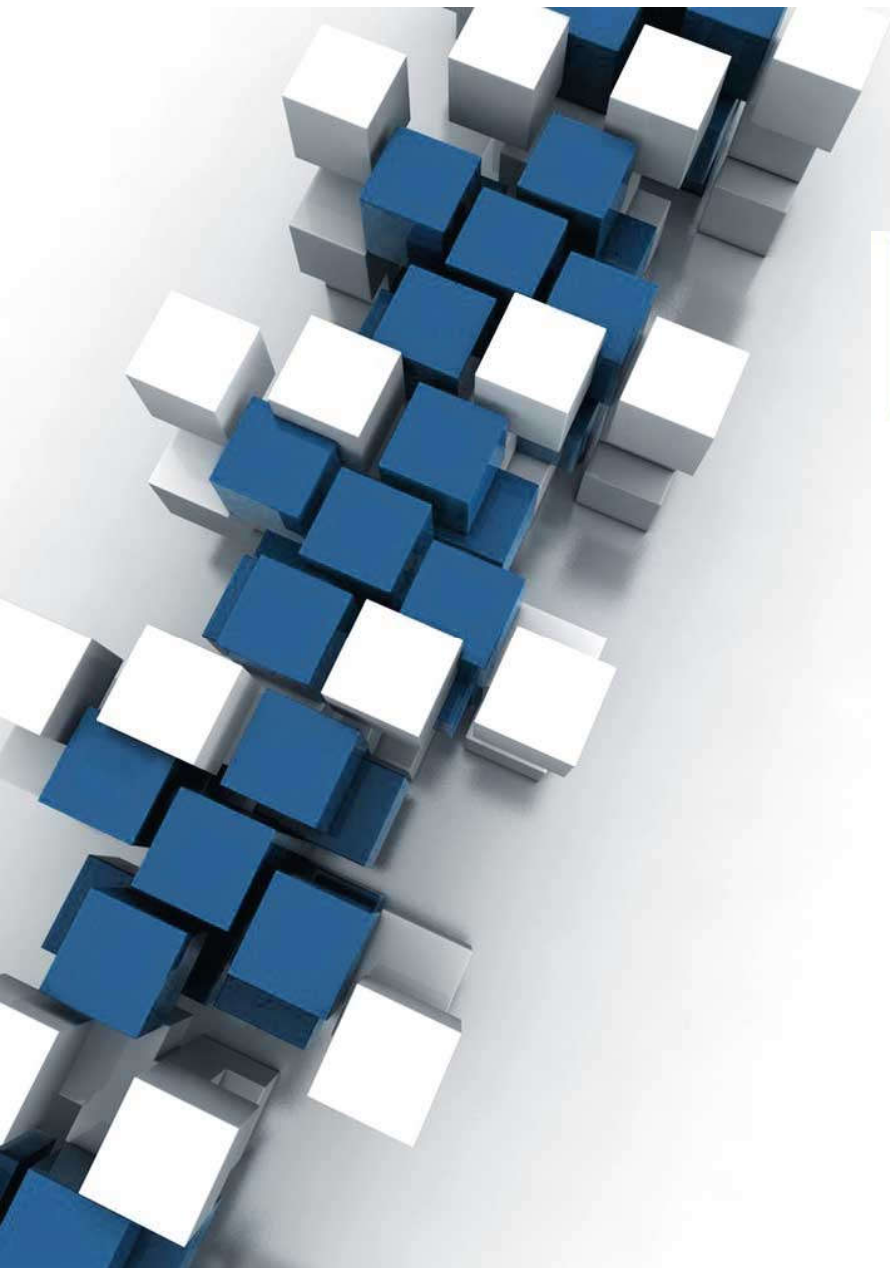
Similar terms: Specifications

Product requirements

Engineering characteristics

Technical specifications: to refer to key design variables of the product such as the oil viscosity or spring constant of the suspension system.

A specification (singular) consists of a metric and a value.



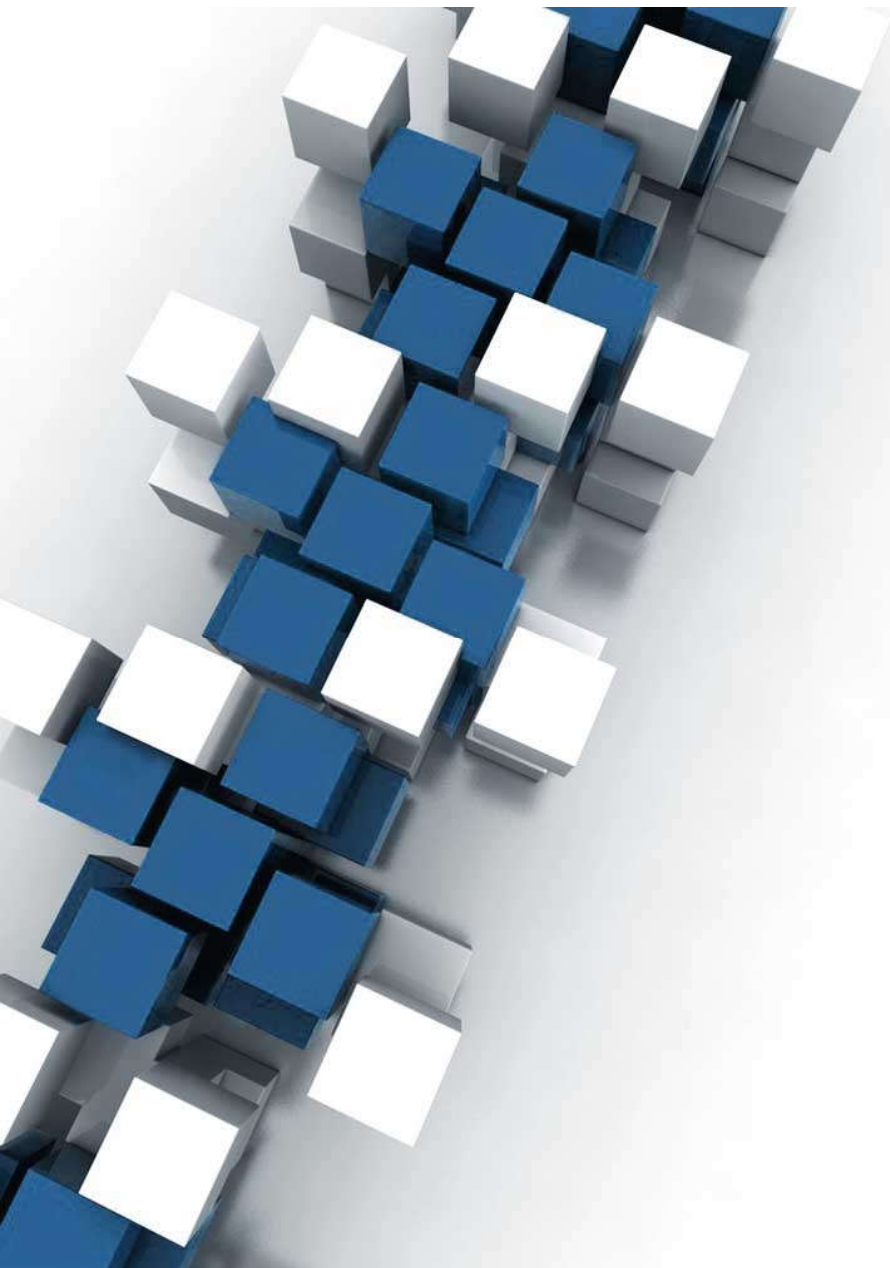
Target vs. Final Specs

- Target specs: the hope and aspiration of the design (ideal and marginal)
- Refined specs: trade-offs among different desired characteristics.
 - Intermediate specs
- Final specs
 - It is in the project's contract book



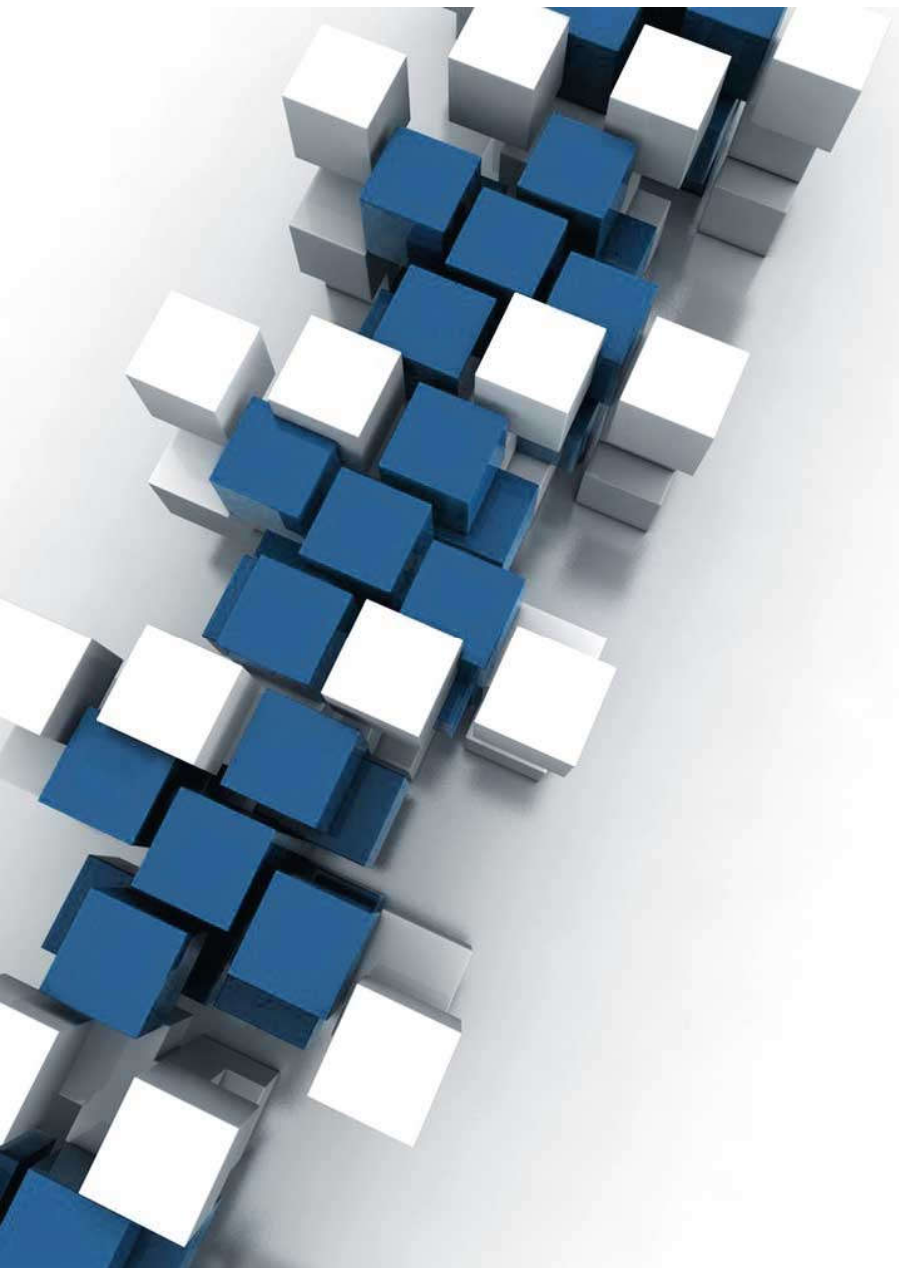
Nature of Specifications

- The reference point for functionality design and quality planning
- A product assembly usually requires a hierarchy of specs, for the final product and each of its components



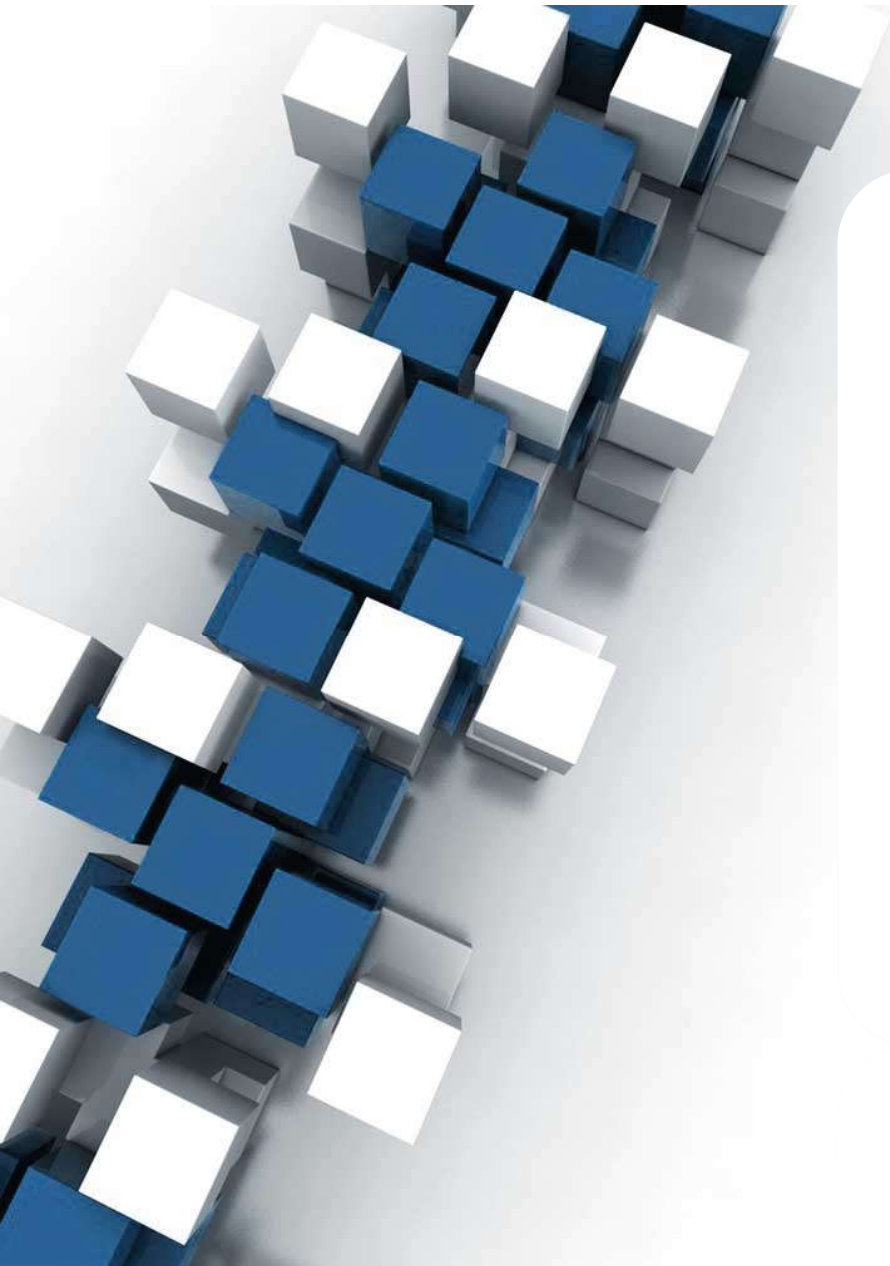
The Product Specs Process

1. Set Target Specifications
 - Based on customer needs and benchmarks
 - Develop metrics for each need
 - Set ideal and acceptable values
2. Refine Specifications
 - Based on selected concept and feasibility testing
 - Technical and economic modeling
 - Trade-offs are critical
3. Reflect on the Results and the Process
 - Critical for ongoing improvement



Procedure for establishing target specifications

1. Identify a list of metrics and measurement units that sufficiently address the needs
2. Collect the competitive benchmarking information
3. Set ideal and marginally acceptable target values for each metric (using at least, at most, between, exactly, etc.)
4. Reflect on the results and the process



From *Product Design and Development* by Karl Ulrich and Steven Eppinger (McGraw-Hill/Irwin)

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Product Specifications Example: Mountain Bike Suspension Fork





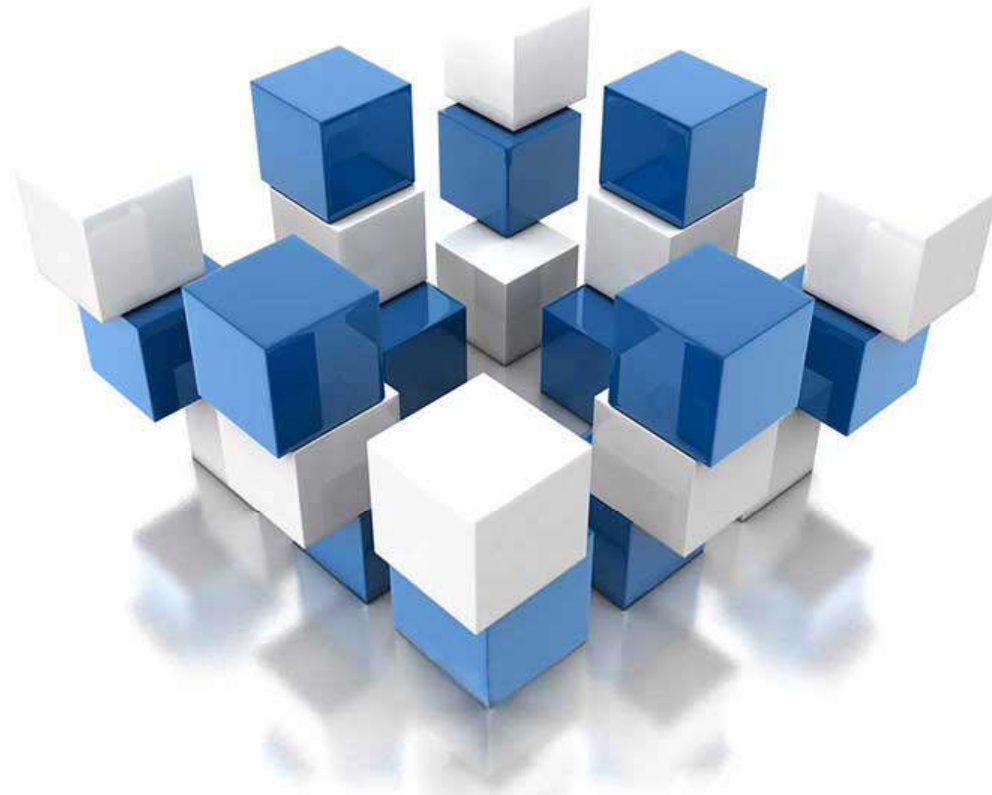
Start with the Customer Needs

#	NEED		Imp
1	The suspension	reduces vibration to the hands.	3
2	The suspension	allows easy traversal of slow, difficult terrain.	2
3	The suspension	enables high speed descents on bumpy trails.	5
4	The suspension	allows sensitivity adjustment.	3
5	The suspension	preserves the steering characteristics of the bike.	4
6	The suspension	remains rigid during hard cornering.	4
7	The suspension	is lightweight.	4
8	The suspension	provides stiff mounting points for the brakes.	2
9	The suspension	fits a wide variety of bikes, wheels, and tires.	5
10	The suspension	is easy to install.	1
11	The suspension	works with fenders.	1
12	The suspension	instills pride.	5
13	The suspension	is affordable for an amateur enthusiast.	5
14	The suspension	is not contaminated by water.	5
15	The suspension	is not contaminated by grunge.	5
16	The suspension	can be easily accessed for maintenance.	3
17	The suspension	allows easy replacement of worn parts.	1
18	The suspension	can be maintained with readily available tools.	3
19	The suspension	lasts a long time.	5
20	The suspension	is safe in a crash.	5



REFLEKSI

1. Informasi penting hari ini
2. Manfaat penting dari informasi penting hari ini
3. Tindak lanjut yang dapat saudara lakukan



THANK YOU

Any question ?