Definition

of Requirements Engineering plus

Definition of Requirements Engineering Plus

RE+

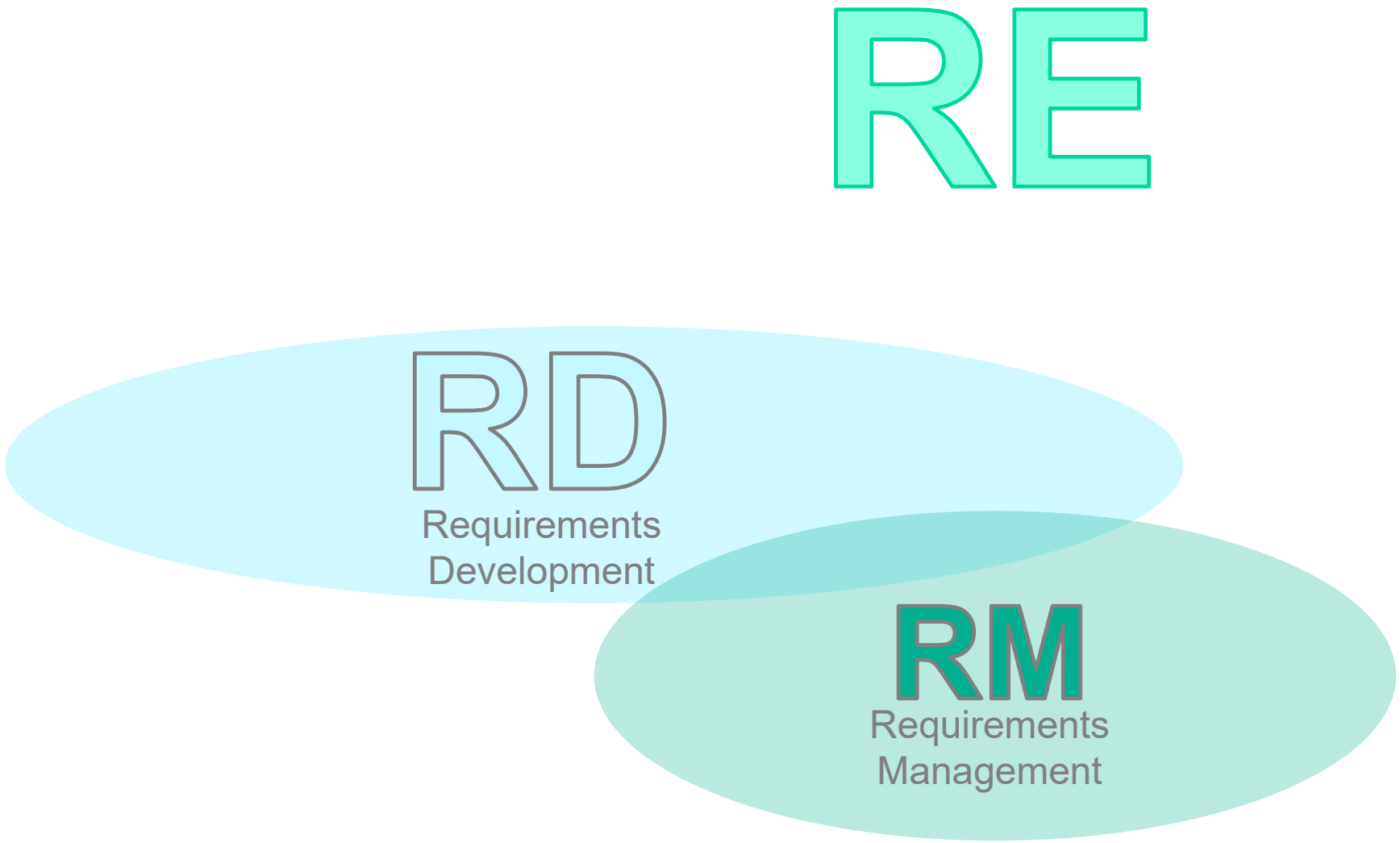
Requirements engineering Plus encompasses all activities of the product life cycle for

- Identification of stakeholder requirements,
- analyzing the requirements to derive further requirements,
- documenting the requirements as a specification,
- creating and document feasible solutions
- managing progress and changes
- validating and verifying the documented requirements and solutions against the customer requirements

and

- processes that support these activities.

RE includes Requirements Development and Requirements Management



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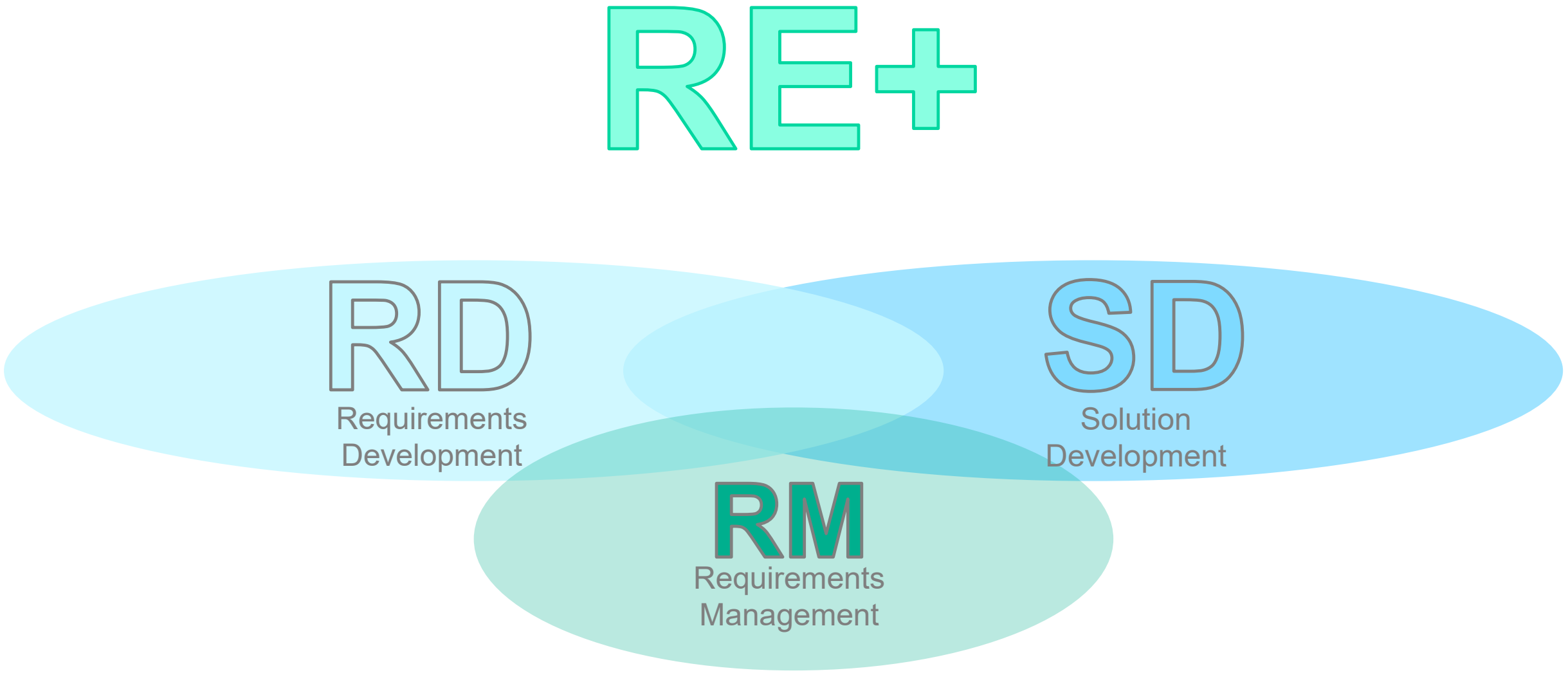
Requirements Engineering Plus includes RD, RM and Solution Development



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Explanation of RD, RM and SD

HANDOUT

Requirements development and requirements management and solution development are three closely related but different disciplines:

Requirements Development:

- **Focus**: Eliciting, analyzing, specifying and validating requirements.
- **Objective**: To ensure that requirements are correct, complete, consistent and understandable.
- **Activities**: Requirements elicitation, analysis, documentation, requirements validation and verification.

Requirements Management:

- **Focus**: Managing and controlling requirements throughout the lifecycle of a project.
- **Objective**: To ensure that requirements remain current and traceable throughout the project.
- **Activities**: Progress tracking, change management, requirements traceability, version control and communication to all stakeholders.

Solution Development

- **Focus**: Translating Requirements into a Technical Solution.
- **Objective**: To ensure that the solution is feasible, and can be implemented within the given constraints, such as budget, time, and resources
- **Activities**: Architecture Design, component design, prototyping, realization, module testing, …

Summary

RE+

Requirements engineering plus is a systematic approach to ensuring the development of the right product or system

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Advantages and opportunities of good RE

- Improve the chances of developing the "right" / successful product/system.
- Avoiding late requirement changes that cost a lot of money.
- Omitting functions that the customer would not spend money on.
- Common understanding of the requirements throughout the PLM team
- Everyone in the team understands the importance of each requirement from a market perspective
- Earlier start of the realization clarifications
- Earlier market entry

Qualitative results

- More reliable requirements (at an earlier stage)
- Better requirements documents (SRS, RS)

Question

When should we do Requirements Engineering?

Do the projects have specific criteria?

When should we do RE?

It is always useful when it comes to

- bringing clarity and structure to the development process,
- coordinating collaboration,
- managing complex requirements and
- ultimately developing a high-quality, standard-compliant product.

So, I would say:

Always 😊

Definition

of Requirements Engineering plus

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