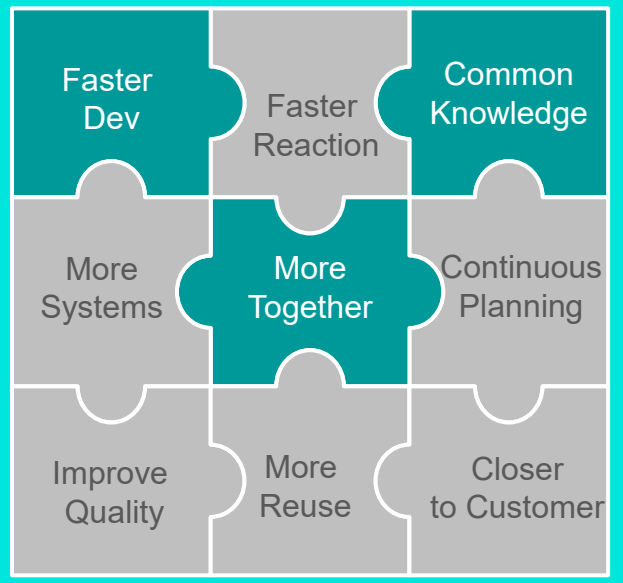
Preciseness of Requirements - From Rough to Fine



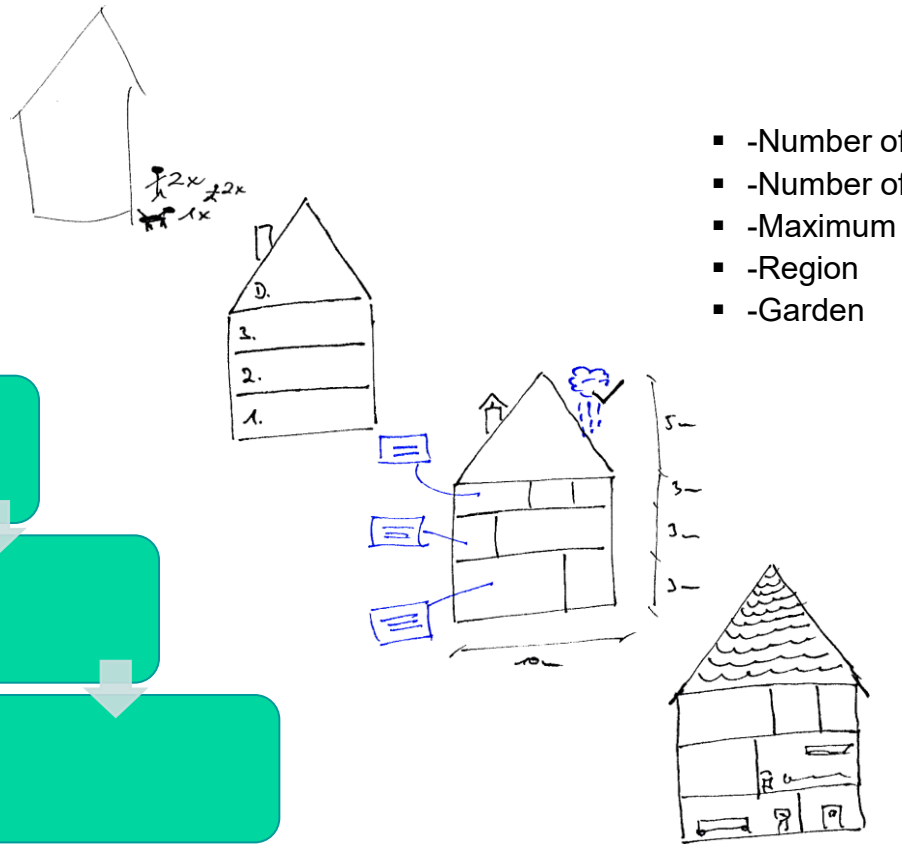
What level of information do we need to be most efficient?

SIEMENS

From Rough to Fine

Preciseness of the information

- Idea
- Concretization
- Concretization
- Concretization
- Result



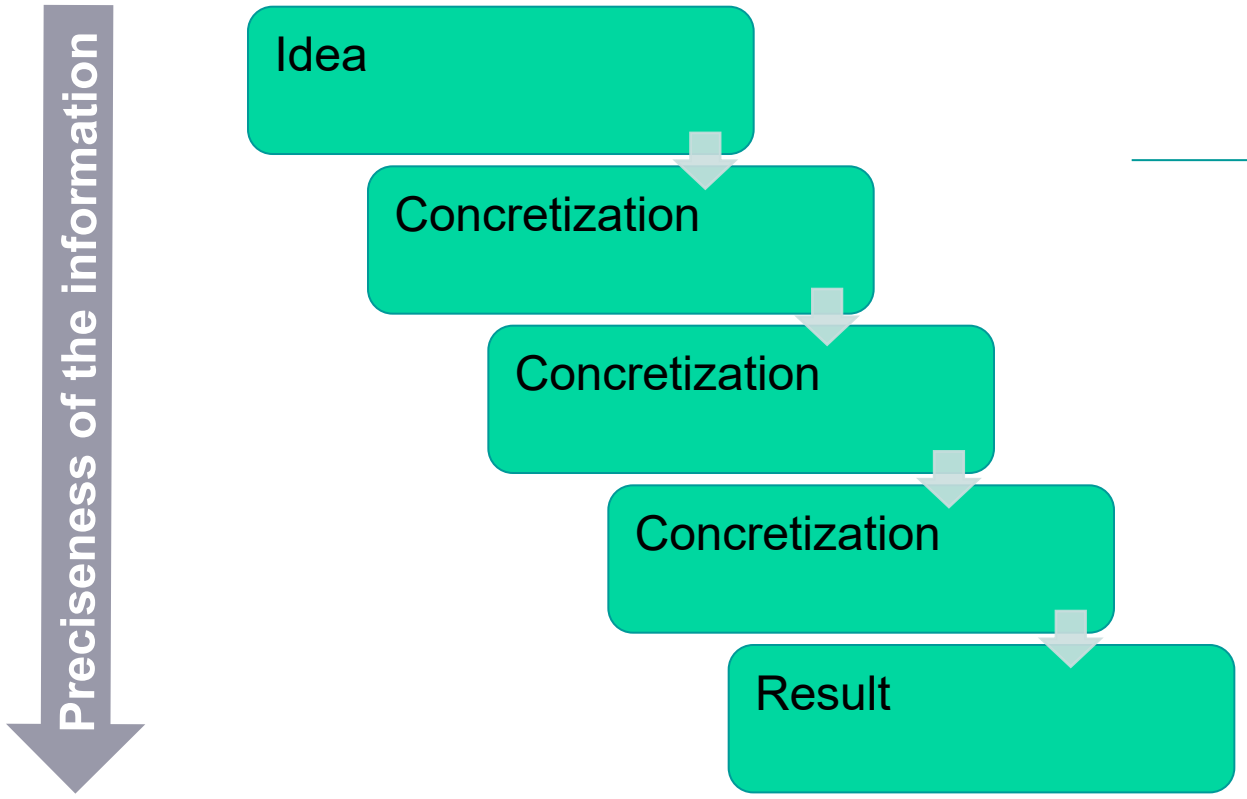
- -Number of rooms
- -Number of persons
- -Maximum costs
- -Region
- -Garden

- -Quantify costs more precisely
- -Ensure feasibility
- -Narrow down solution paths
- -Minimize risk

The right information at the right time

SIEMENS

Our Development process - Preciseness of requirements

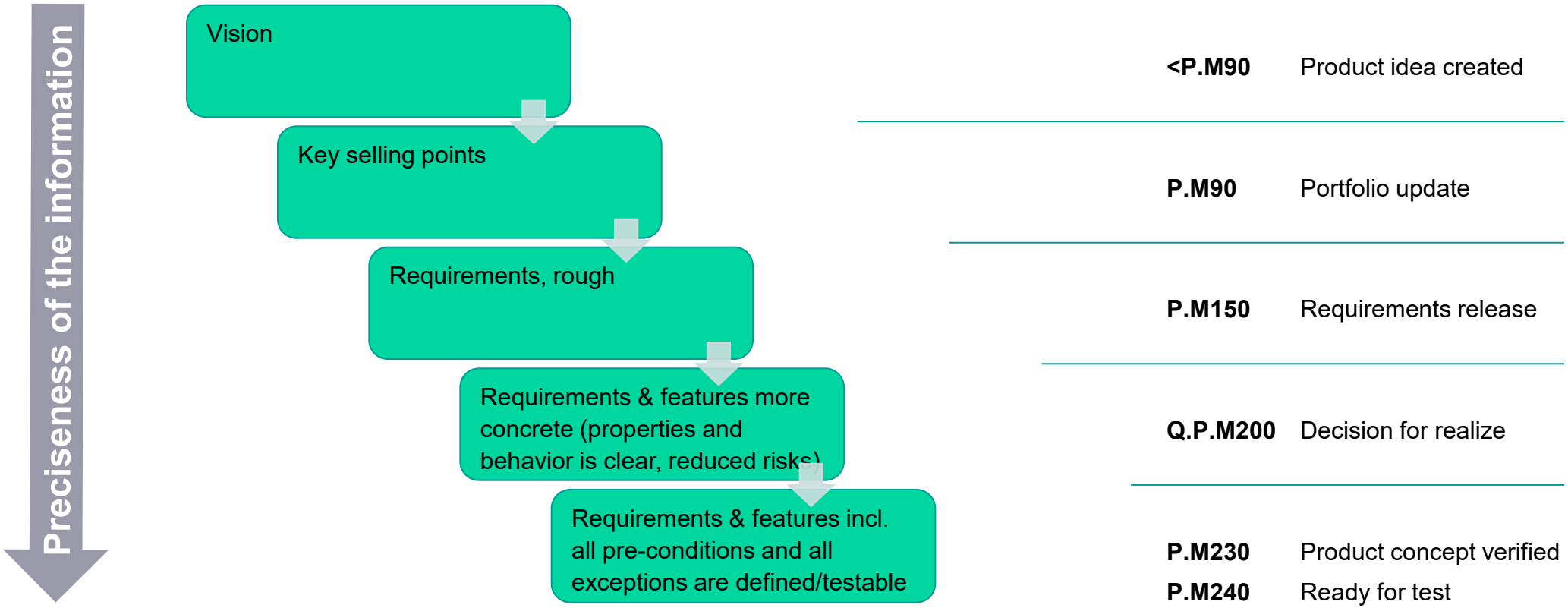


<P.M90	Product idea created
P.M90	Portfolio update
P.M150	Requirements release
Q.P.M200	Decision for realize
P.M230	Product concept verified
P.M240	Ready for test

The right information at the right time

SIEMENS

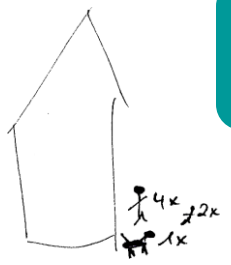
Our Development process - Preciseness of requirements



The right information at the right time

SIEMENS

Vision statement



Vision

Key selling points

Requirements, rough

Requirements & features more concrete (properties and behavior is clear, reduced risks)

Requirements & features incl. all pre-conditions and all exceptions are defined/testable

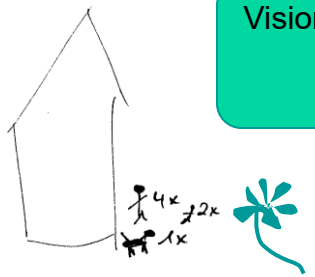
Our vision is
to **[ultimate goal or aspiration]**
by **[how you plan to achieve it]**,
creating **[impact or change]**
for **[target audience or market].**

Google: "To provide access to the world's information in one click."

Siemens: "We make real what matters."

SIEMENS

Key selling points



Vision

Key selling points

Requirements, rough

Requirements & features more concrete (properties and behavior is clear, reduced risks)

Requirements & features incl. all pre-conditions and all exceptions are defined/testable

Unique selling points

Benefits to the target customer

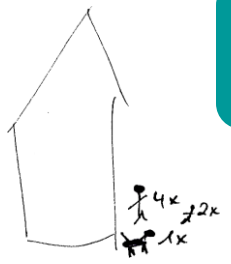
What sets this product apart from competitors

Potential new use cases and applications

Performance metrics

SIEMENS

Benefit for all readers of these information level



Vision

Key selling points

Requirements, rough

Requirements & features more concrete (properties and behavior is clear, reduced risks)

Requirements & features incl. all pre-conditions and all exceptions are defined/testable

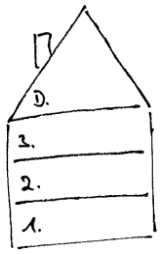
… motivates and inspires employees, stakeholders, and customers by presenting a compelling future.

… provides a clear path and focus for strategic planning and decision-making.

… ensures that all efforts and initiatives are aligned with the overarching goals and values of the organization.

SIEMENS

Benefit for all readers of these information level



Vision

Key selling points

Requirements, rough

Requirements & features more concrete (properties and behavior is clear, reduced risks)

Requirements & features incl. all pre-conditions and all exceptions are defined/testable

… the PO can add more acceptance criteria

… the Architect can define the architecture in principle

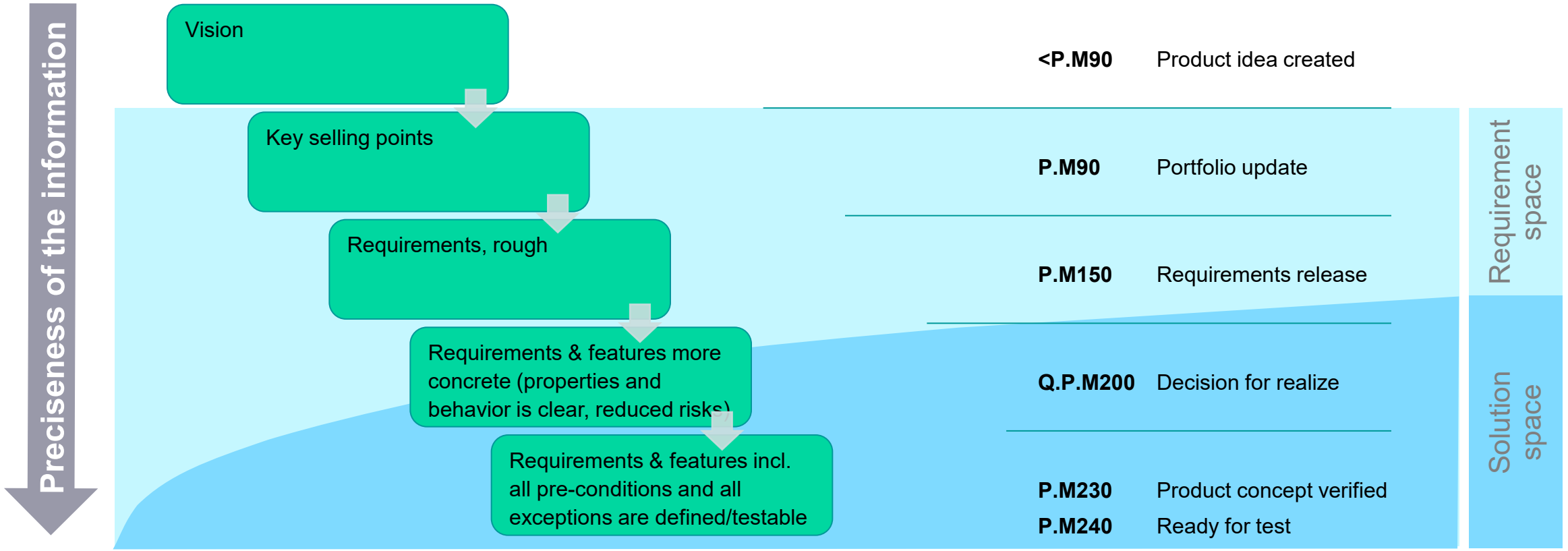
… the Architect/Dev can check solutions for critical requirements

… the tester can define the first draft of a test concept

… the CPO can define the main issues of the plan for the commercial launch

SIEMENS

Intermediate Topic:
Our Development process – Requirement Space and Solution Space



SIEMENS

Question

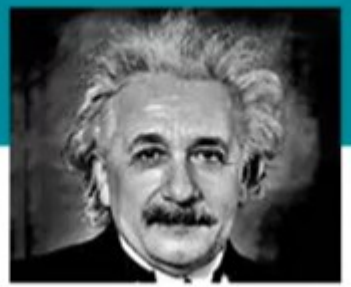
In a Requirements Workshop:

How long do you stay in the requirements space?
In % of the whole workshop time?

Quote

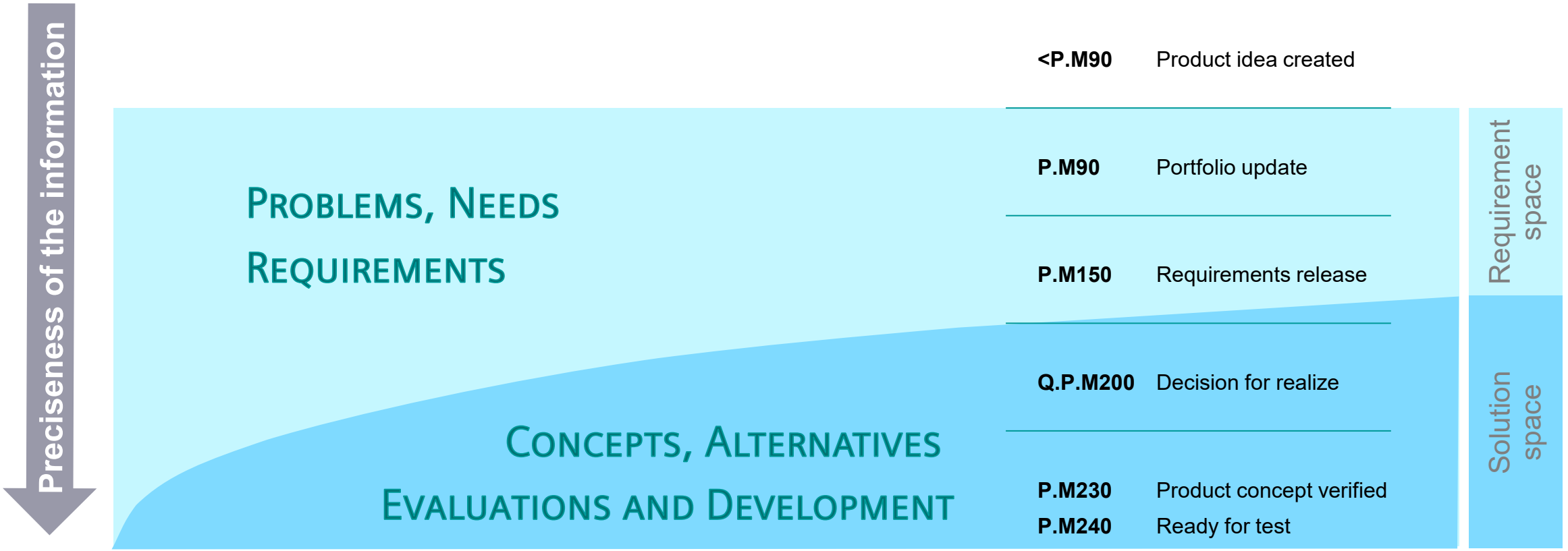
"If I had an hour to solve a problem I'd spend 55 minutes thinking about the problem and five minutes thinking about solutions"

— Albert Einstein



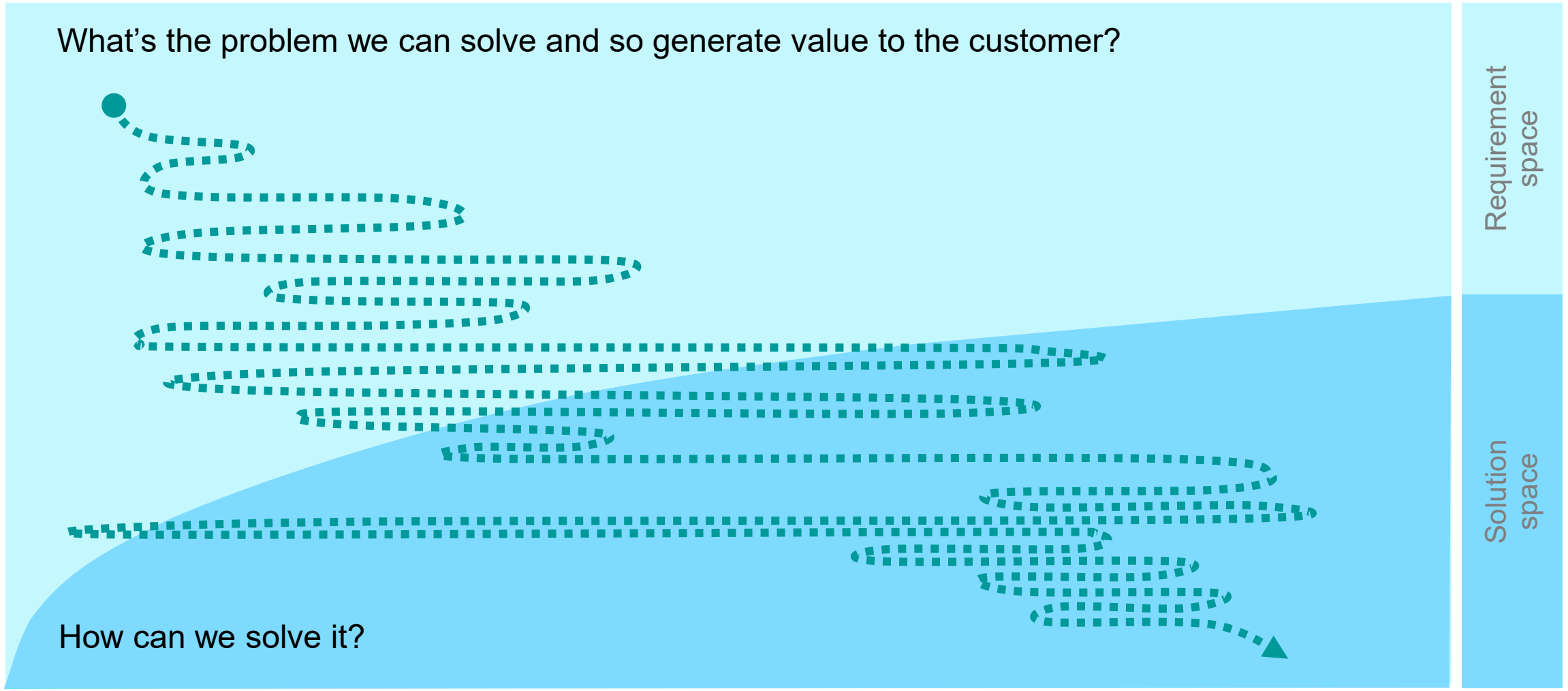
SIEMENS

Our Development process – Requirement Space and Solution Space



SIEMENS

Requirement Space and Solution Space



SIEMENS

Benefit for all readers of these information level

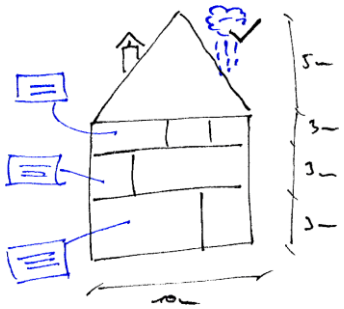
Vision

Key selling points

Requirements, rough

Requirements & features more concrete (properties + behavior is clear, red. risks)

Requirements & features incl. all pre-conditions and all exceptions are defined/testable



… the R&D creates a complete description of the product. (Feature Description)

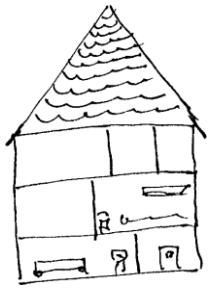
… the R&D creates architecture and other technical specifications and then implement them.

… the test department creates a test plan.

… the PO checks the product behavior with pilot users.

SIEMENS

Benefit for all readers of these information level



- Vision
- Key selling points
- Requirements, rough
- Requirements & features more concrete (properties and behavior is clear, reduced risks)
- **Requirements & features incl. all conditions, all exceptions are defined/testable**

… Team defines behavior in newly recognized exception situations.

...the R&D extends or updates technical specifications

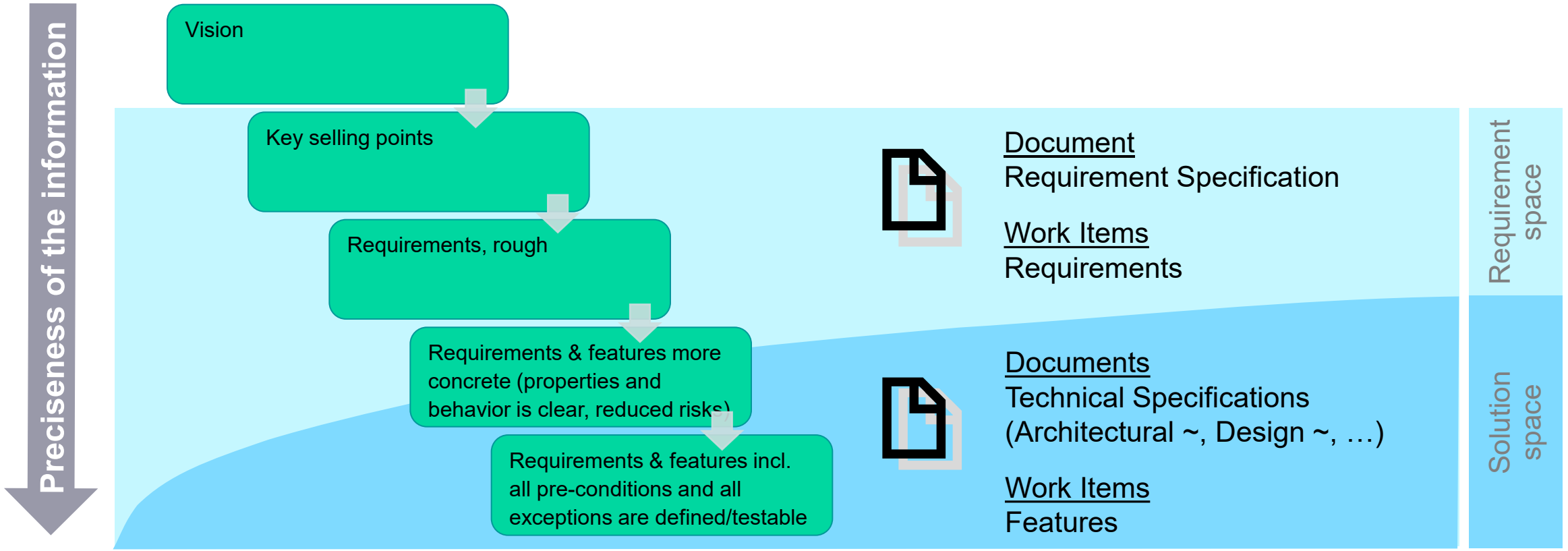
...the documentation department finalizes the user documentation.

… the test department finalizes test plan.

… the PO checks the product behavior with pilot users in corner cases.

SIEMENS

Our Development process – Requirement Space and Solution Space



SIEMENS

Real example of a requirement

Req-ID	Name	Herkunft/Verweis	Prio	Safety	Status	Betr.Modul
RS-0053	**Der Anwender schließt das KNX-Modul mit Twisted Pair (Plus (+) und Minus (–) Kennzeichnung) an den KNX-Bus an.**		Prio_09	no	abge-stimmt	KNX

- Zu verwendende Standard Busleitung: YCYM oder J-Y(ST)Y (2 x 2 x 0,8 mm²)

Real example of a provided solution

7.1.1.15 KNX-Klemme und KNX-Stiftleisten

	Name	Herkunft	Prio	Safety	Status	Bendef. 1	Bendef. 2	Bendef. 3
FS-2053	**Der Anwender schließt das KNX-Modul mit Twisted Pair (Plus (+) und Minus (–) Kennzeichnung) an den KNX-Bus an.**	RS-0053	0_must	no	---	---	---	---

Zum Anschluss des KNX-Busses wird ein spezieller WAGO Steckverbinder für KNX-Anwendungen in den Klemmenfarben rot/schwarz (rot/dunkelgrau) verwendet. Als Aufnahme für diesen Steckverbinder werden 2 Einzel-Lötstifte für die Leiterplatte benötigt.

Zur Klemme passende Stifte können von Firma Wago unter der Bestellbezeichnung 243-131 bezogen werden. Die Stiftlänge ist jedoch nur 4,5mm. So sind ggfs. Sonderstifte nötig!
Hersteller und Bestellbezeichnung werden im Lauf der Entwicklung festgelegt.

Die Stifte haben folgende Maße:

- Länge: 14,5 mm ab Oberseite der Leiterplatte
- Durchmesser: 1 mm
- Der Abstand beider Stifte beträgt: 5,75 mm
- Kontaktflächen verzinnt

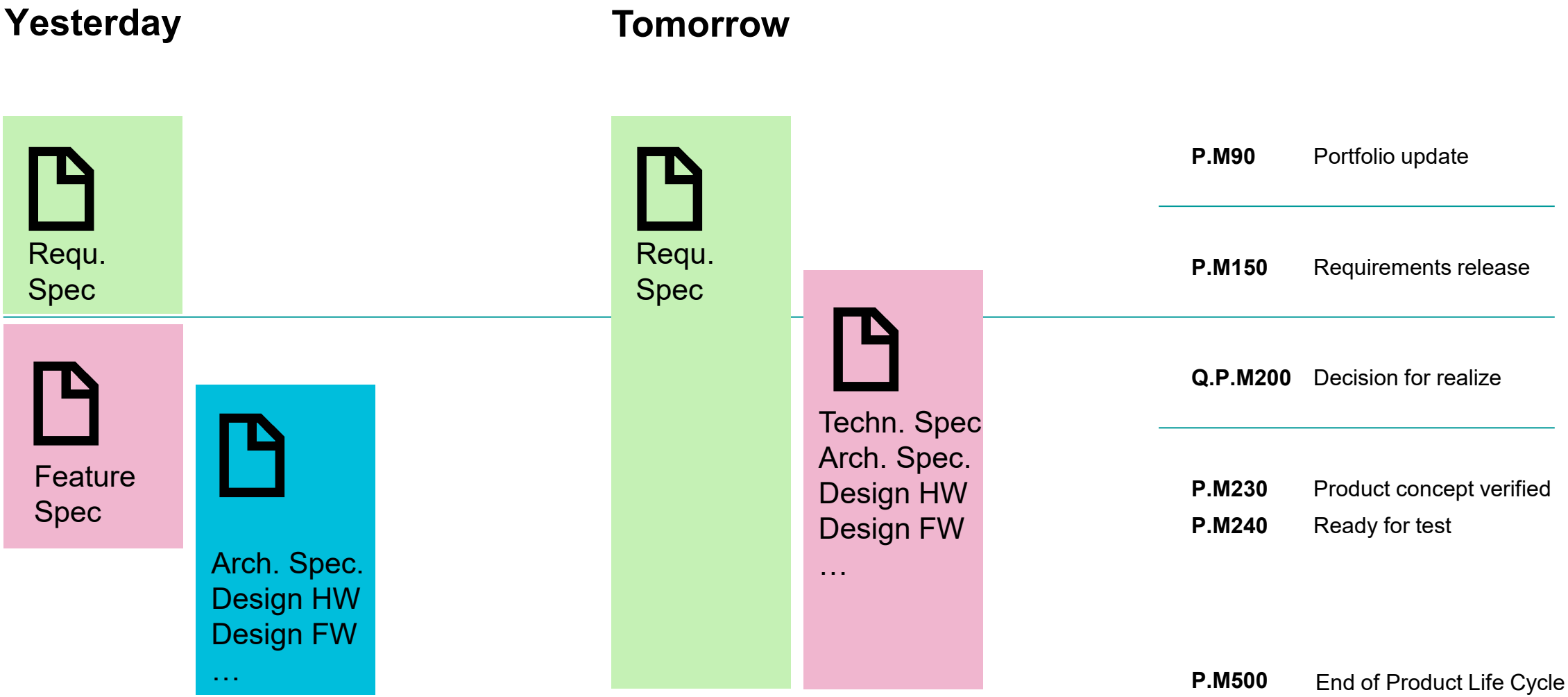
Link auf die Internetseite des Herstellers der KNX-Klemmen: http://www.wago.de/produkte/produktkatalog/leiterplattenklemmen-steckverbinder/steckbare-leiterplattenklemmen/steckverbinder-eib-busankoppler-serie-243/index.jsp

Die KNX-Klemme hat folgende Leistungsdaten:

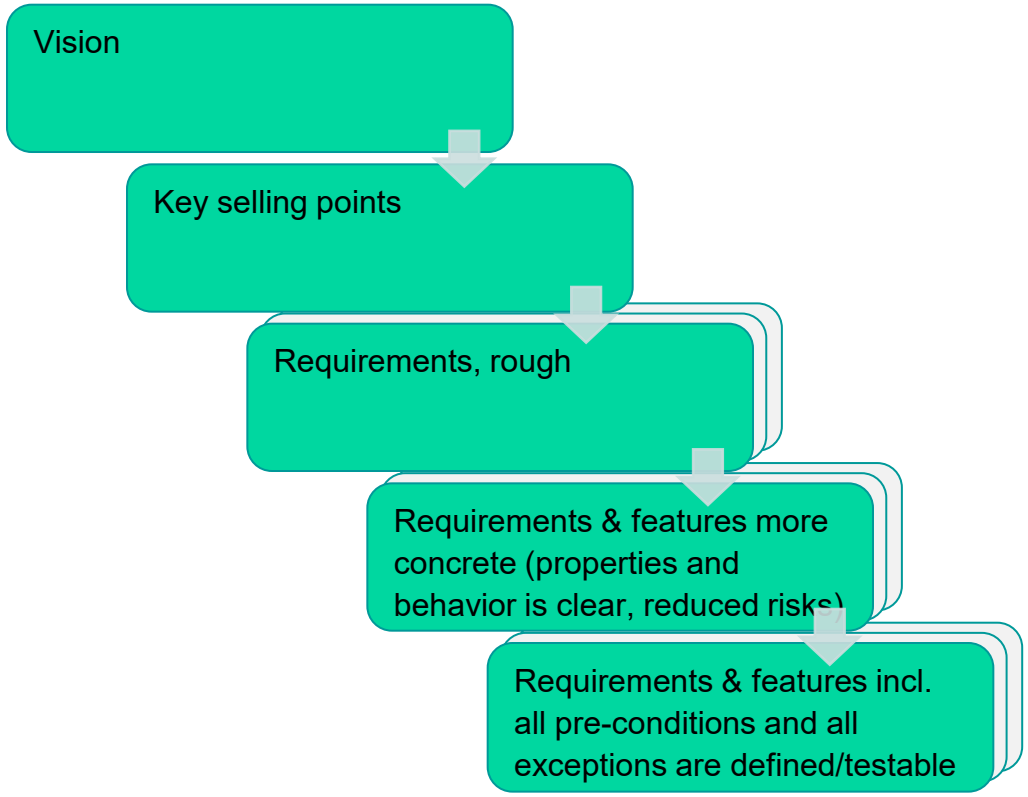
- Kompakte 4-Leiter-KNX-Steckverbinder mit PUSH WIRE®-Anschluss
- Eindrähtige Leiter direkt steckbar
- 4-Leiter-Anschluss – keine Unterbrechung der KNX-Bus-Verbindung bei Gerätetausch
- Leiterdurchmesser: 0,6 mm bis 1 mm (AWG 22 – 18)
- Temperaturbereich: -60°C bis 105°C
- Nennstrom bis 6A

Abbildung 17: Ansicht der WAGO-KNX-Klemme

Validity of Documents



Our Development process - Preciseness of requirements

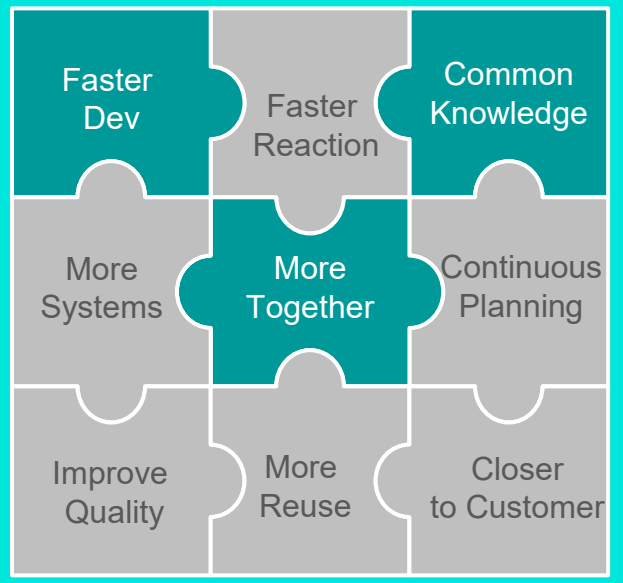


We follow this approach for each Function Group

The right information at the right time

SIEMENS

Preciseness of Requirements - From Rough to Fine



What level of information do we need to be most efficient?

Q&A

SIEMENS