



AGILE SPICE™

Version 1.1
ready for piloting

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How to use this booklet

AGL.1 Agile Work Management

The purpose of Agile Work Management is to collaboratively manage the work of a team (of teams) to develop iteratively within work boundaries, vision and strategic themes to generate business and customer value.

Agile Process Outcomes

- [1] the scope of the work is defined and kept up to date.
- [2] the right set of competencies and adequate resources are planned and adapted as needed.
- [3] a work approach is defined and continuously improved.
- [4] dependencies, interfaces, stakeholders and their commitment are planned for and monitored.
- [5] ...

Base practices

BP1

Identify Demand and Work Boundaries.

Identify the customer demand and work boundaries collaborating closely with stakeholders. Derive the vision and strategic themes linked to business and customer value. Keep demand, boundaries, vision, and strategic themes up to date. [OUTCOME 1]

Notes & Definitions:

- 1 Collaboration can be internal and external; e.g., within a program, product line or organization, and together with (multiple) customers and suppliers.
- 2 A customer demand is a recorded customer statement on the problem to be solved.
- 3 A vision defines the product capabilities potentially leading to a successful solution.
- 4 Strategic themes are unique selling proposition. They typically run across iterations and address a mid and long-term perspective.
- 5

Agile Work Products: Product backlog, demand statement (e.g. includes agreed stakeholder goals), boundaries, vision and strategic themes

Supporting Agile Principles 1, 2, 4, 10, 11

Purpose: What benefit does this process offer?

Process outcomes: What are the typical process results?

[Outcome 1] refers to the agile process outcome No. 1

Base Practices: What are the expected practices to achieve the process purpose?

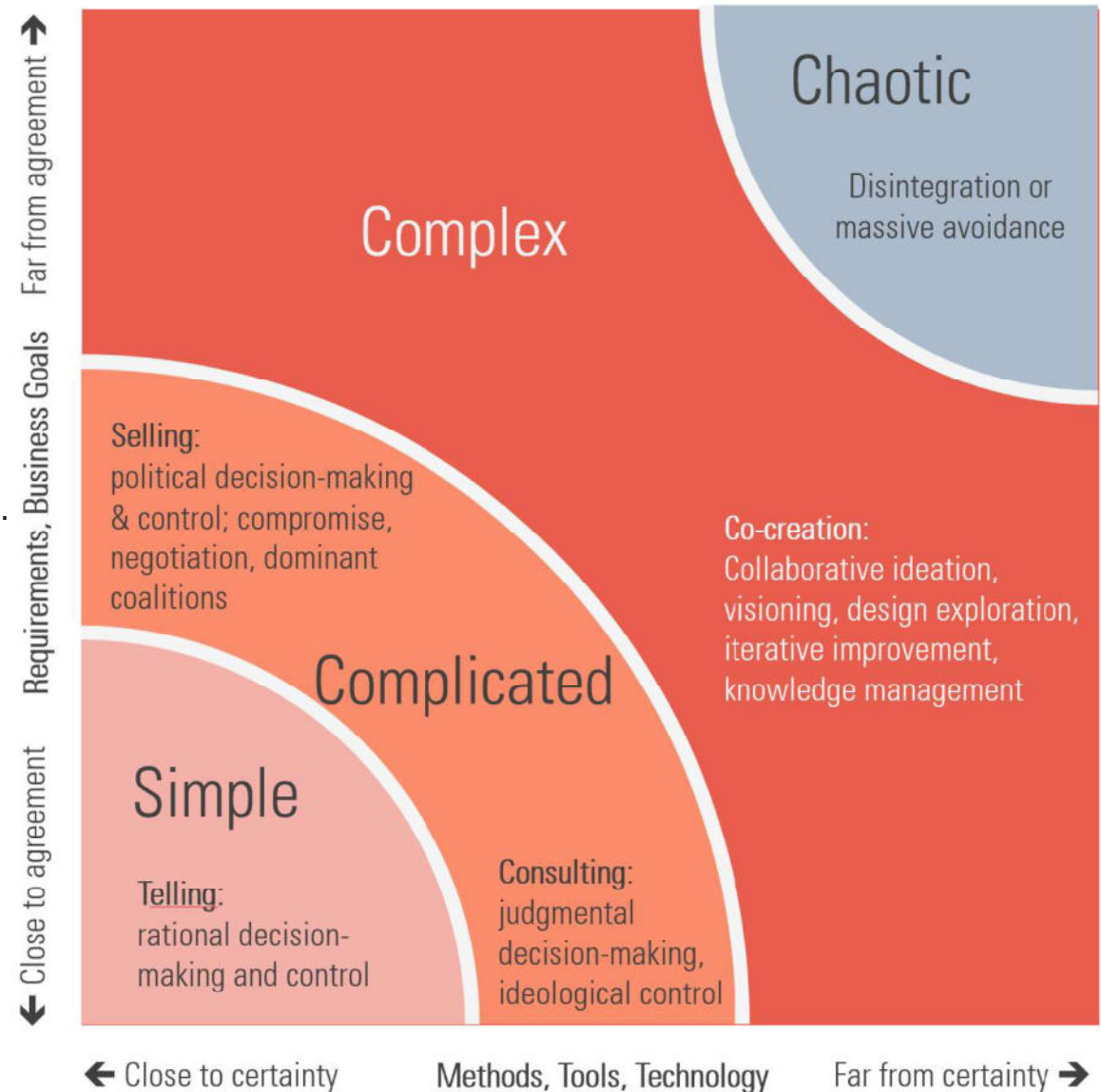
Notes & Definitions: How to interpret and apply the related Base Practice

Agile Work Products: What are the typical agile artefacts?

Supporting: How does the Base Practice (including artefacts) maps to ...
The agile principles (page)

Agile SPICE™ is a bridge to Automotive SPICE™

- Growing complexity and faster changes during development drive increased use of agile approaches.
- OEMs ensure the overall quality and safety/security of those products, leading to increased pressure to show SPICE capabilities.
- SPICE as is can be applied and interpreted for any kind of development.
- However, both agile organizations and those in an agile transition struggle in implementing and interpreting SPICE.
- There is a need to reduce misunderstandings and help to interpret the terminology for both sides.
- This bridge shall ...
 - reduce the variation in interpretation of assessors,
 - increase the acceptance of SPICE in the agile community.



Stacey Matrix, developed by Ralph Stacey, Stacey RD. Strategic management and organisational dynamics: the challenge of complexity. 3rd ed. Harlow: Prentice Hall, 2002. Picture by Kugler Maag Cie GmbH 2019

Why Agile SPICE™?

Viewpoint from an agile organization

- Driving acceptance of process capability requirements in agile environments especially in automotive industry
- Practices describing „what“ is expected not the „how“
 - Avoiding discussions about specific agile approaches
 - Ensuring expected process capability by automotive industry
- Helping in both implementing agile good practices and achieving Automotive SPICE expectations at the same time
- Resolving past misunderstandings of how to implement and assess relevant Base Practices in agile environments
- Providing a “SPICE bridge” to agile approaches

Viewpoint from an agile organization

- How to keep existing capability while moving toward agile approaches?
- Learning about agile terminology
- Avoiding typical pitfalls in an agile transformation (e.g., how to ensure a minimum of governance)

Viewpoint of an assessor

- Very broad interpretations of existing SPICE processes in agile organizations
- Lack of common terminology for assessing agile
- Need a mapping of ratings between classical and agile approaches
- Requires comparability of ratings of agile and classical approaches to development work

Wishful thinking in the long run: Use of Agile SPICE™ as a bridge to other PAMs.

Agile SPICE™ Assumptions

- Providing agile practices for the what and not the how
- Condensing existing best agile practices without favoring a specific one (e.g., Scrum, Kanban, SAFe, LeSS, Nexus, Scrum of Scrums....)
- Practice is within the guiding principles of the agile manifesto and our definition of agility
- Bridging existing PAM processes and outcomes (do their intentions match?)
- Retaining existing process attributes / generic practices (capability dimension) on CL2-5

Agility is the timely adaption of an organization (or team) to an ever-changing environment while continuously delivering value to their customers at sustainable pace.

Definition by Kugler Maag Cie and Knüvener Mackert GmbH.

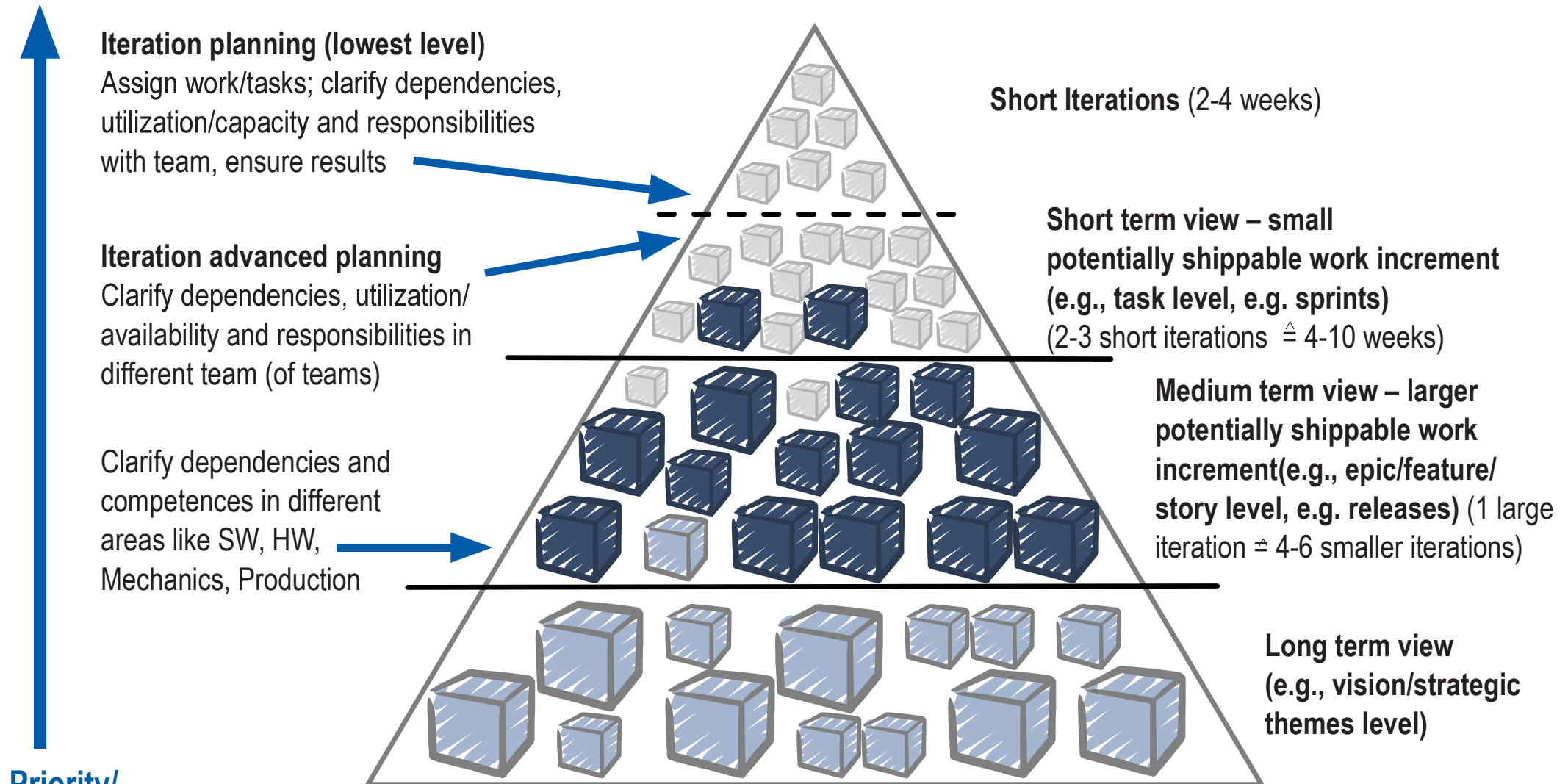
Agile Principles for Automotive*

1. Our highest priority is to satisfy our customers through early and continuous delivery of valuable and usable system functions.
2. Requirement changes are mastered, prioritized and systematically integrated into our continuous development work. Agile processes make use of changes to the competitive advantage of the customer.
3. We deliver regularly usable and enhanced system features, preferring shorter time periods within a few weeks or months.
4. Experts from all domains should collaborate intensively during product development.
5. We organize the product development around motivated individuals. We design an environment and support to achieve maximum value. In doing so, we trust that the individuals do their jobs independently and in the best possible way.
6. The most efficient and effective way to communicate information to and within a development team is face-to-face.
7. Usable and extended system functions are the most important measure of progress. Agile processes promote sustainable development.
8. Clients, developers and users should be able to maintain a steady pace for an unlimited period of time.
9. Continuous attention to technical excellence and good design promotes agility.
10. Simplicity - the art of maximizing the amount of work not done - is essential.
11. The best architectures, requirements and designs are created by self-organized teams.
12. At regular intervals, the team reflects on how it can become more effective and adjusts its behavior accordingly

* Adapted by Kugler Maag Cie

Agile Work Management – Assumptions

Granularity of planning



Priority/
Level of detail

Picture by Kugler Maag Cie GmbH 2019

AGL.1 Agile Work Management

The purpose of Agile Work Management is to collaboratively manage the work of a team (of teams) to develop iteratively within work boundaries, vision and strategic themes to generate business and customer value.

Agile Process Outcomes

1. the product vision and strategic themes are jointly defined and kept up to date;
2. the right set of competencies and adequate resources are planned and adapted as needed;
3. a work approach is defined and continuously improved;
4. dependencies, interfaces, stakeholders and their commitment are planned for and monitored;
5. the needed infrastructure and work environment is planned and operationalized;
6. the feasibility is evaluated for critical elements;
7. the backlog is estimated and prioritized as basis for both for short term and long term planning;
8. the content of iterations and (potentially) shippable work increment is planned and realized;
9. progress and status of work completion is made transparent and impacts on strategic themes and vision are managed to ensure consistency;
10. impediments are identified and resolved when planned work or vision and strategic themes are significantly affected; recurrence of selected issues is prevented.

DRAFT - READY FOR PILOTING - FEEDBACK WELCOME

AGL.1 Agile Work Management (AWM) – Practice Summary

- BP.1 Identify Demand and Work Boundaries.** Identify the customer demand and work boundaries collaborating closely with stakeholders. Derive the vision and strategic themes to achieve business and customer value. Keep demand, boundaries, vision, and strategic themes up to date.
- BP.2 Build Team.** Form, empower and enable a team (of teams) fitting to the vision and work boundaries. Ensure the right skill and experience set within each team (of teams).
- BP.3 Define Work Approach.** Establish, record and keep the work approach of the team (of teams) up to date. Ensure that the work approach reflects the given level of complexity, fulfils the work boundaries and defines team policies, iteration cycles, agile events, artefacts, and roles.
- BP.4 Manage Stakeholders and Interfaces.** Stakeholders, interfaces and dependencies within and outside the team (of teams) are identified, planned for, recorded, and involved.
- BP.5 Plan Infrastructure.** Identify, plan for and keep the needed work and development infrastructure up to date.
- BP.6 Evaluate feasibility.** Evaluate and act on the feasibility of critical elements.
- BP.7 Estimate Work.** Perform a high level estimate on all backlog items. Estimate and prioritize work for the upcoming iteration cycle to ensure a common understanding of the work content within the team (of teams). Refine and adapt estimates to continuously improve team collaboration and the quality of the product backlog.
- BP.8 Work Planning.** Plan and realize the content of the upcoming iteration cycles based on estimates, team capacity, and definitions of ready and done.
- BP.9 Inspect and Adapt.** Inspect, measure and visualize the status and progress of work. Adapt as needed to ensure consistency and to manage impacts on strategic themes and vision.
- BP.10 Manage Impediments.** Identify, monitor, and resolve impediments within and across iteration cycles by teams (of teams).
- BP.11 Improve Work Approach.** Inspect and adapt the work approach based on short learning cycles within the team (of teams).

BP1

Identify Demand and Work Boundaries. Identify the customer demand and work boundaries collaborating closely with stakeholders. Derive the vision and strategic themes linked to business and customer value. Keep demand, boundaries, vision, and strategic themes up to date. [OUTCOME 1]

Notes & Definitions:

- *Collaboration can be internal and external as well as across organizations; e.g., within a program, product line or organization, and together with (multiple) customers and suppliers.*
- *A customer demand is a recorded customer requirement or statement on the problem to be solved.*
- *A vision defines the product capabilities potentially leading to a successful solution.*
- *Strategic themes are unique selling propositions related both to vision of the product and its quality criteria. They typically run across iterations and address a mid and long term perspective.*
- *Vision and strategic themes are typically the result of requirements engineering activities.*
- *A customer can be a stakeholder within (e.g., product management) or external to the organization (an individual customer)*
- *Boundaries can include out of scope, system context, solution space, link to feasibility, organizational constraints and business objectives, platform and product line constraints as well as regulatory requirements.*
- *Ensure agreement with stakeholders on change mechanism for changes to the demand and boundaries.*

Agile Work Products: Product backlog, Demand statement (e.g. includes agreed stakeholder goals),
Boundaries, Vision and strategic themes

Supporting Agile Principles 1, 2, 4, 10, 11

Base practices

BP2

Build Team. Form, empower and enable a team (of teams) fitting to the vision and work boundaries. Ensure the right skill and experience set within each team (of teams). [\[OUTCOME 2\]](#)

Notes & Definitions:

- *Self organization is a guiding principle for founding an agile team (of teams) and their efficient performance.*
- *Teams of teams are used for larger scopes using a fitting agile scaling approach for teams.*
- *In scaling approaches all teams need to agree on ground rules to ensure a common purpose.*
- *Best performing teams are typically stable in composition and are working at a sustainable pace.*
- *Team building includes defined ground rules for collaboration within a team (of teams).*
- *Empowerment is a conscious delegation of decision authority to a team (of teams).*
- *Enablement ensures the right skills and experience set within a team (of teams) including needed training.*
- *Responsibility for technical releases and product liability must be defined.*

Agile Work Products: Team setup, Work approach, Training plans and records, Skill profiles

Supporting Agile Principles 4, 5, 6, 8, 9, 11, 12

DRAFT - READY FOR PILOTING - FEEDBACK WELCOME

Define work approach. Establish, record and keep the work approach of the team (of teams) up to date. Ensure that the work approach reflects the given level of complexity, fulfils the work boundaries and defines team policies, iteration cycles, agile events, artefacts, and roles. [\[OUTCOME 3\]](#)

Notes & Definitions:

- *Typically, agility is based on the pull principle as well as on limiting the amount of work in progress and on reducing multi tasking.*
- *The Definition of Done (DoD) is a build in quality measure containing minimum, agreed to and recorded set of criteria upon which a task or increment is considered to be done.*
- *The Definition of Ready (DoR) is a build in quality measure containing minimum, agreed to and recorded set of criteria upon which a content is considered as ready to be pulled.*
- *Typical team (of teams) policies include Definitions of Ready and Done based on quality criteria.*
- *Stakeholder requirements for DoD and DoR include quality requirements, and possibly regulatory requirements imposed by safety or security considerations.*
- *An agile approach often encompasses a whole product lifecycle and a clear alignment with the customer work approach.*
- *Typically, there is an agreement in place with the customer on the chosen agile approach and how delivered work is accepted for each shippable work increment.*
- *If an iteration based approach has been chosen, iterations must be in line with the chosen agile approach and is influenced by the customer and technical feasibility as well as safety and security aspects.*

Agile Work Products: *Work approach, Definition of Done (DoD), Definition of Ready (DoR)*

Supporting Agile Principles 2, 4, 5, 7, 8, 9, 10, 11

Manage Stakeholders and interfaces. Stakeholders, interfaces and dependencies within and outside the team (of teams) are identified, planned for, recorded and involved. [\[OUTCOME 4\]](#)

Notes & Definitions:

- Dependencies and interfaces include both technical and organizational ones:
 - technical: e.g., among major architectural elements or safety/security related activities/roles;
 - organizational: e.g., to other teams/stakeholders and between different iteration cycles;
 - Supplied products or services: e.g. from suppliers or from customers.
- *Critical dependencies should be identified from the start, their sequence identified, and their status tracked across multiple iteration cycles. The elements of the backlog typically contain a path to address them.*
- *Stakeholder involvement includes tracking the commitment of involved and affected parties as well as ensuring the active involvement of stakeholders.*
- *Maintain communication records for all interfaces. Continuously verify the necessity of all interfaces and remove unnecessary interfaces.*
- *In case of mixed agile and classical approaches, e.g., on system and other discipline level, clearly define how different approaches integrate and synchronize.*
- *Agile practitioners are typically organized in communities of practice (CoP, self organizing networks).*

Agile Work Products: Agile work approach (containing e.g. communication and meeting mechanisms, technical and organizational interfaces and dependencies), Product backlog

Supporting Agile Principles 2, 4, 5, 12

Plan Infrastructure. Identify, plan for and keep the needed work and development infrastructure up to date.

[OUTCOME 5]

Notes & Definitions:

- Infrastructure typically includes but is not limited to an engineering tool chain, ticketing and backlog database, verification and integration environment, communication and collaboration tools, physical and online workspaces, work environment, licensing, etc.
- Align infrastructure needed for the interfaces to all stakeholders within and outside the organization.
- Agile approaches typically focus on as much automation of processes as possible, e.g. for ticketing, development, continuous integration and deployment, and transparency of status.

Agile Work Products: *Work environment, Product backlog*

Supporting Agile Principles 3, 6, 10

Evaluate feasibility. Evaluate and act on the feasibility of critical elements. [OUTCOME 6]

Notes & Definitions:

- Criticality is related to fundamental and conscious decisions during the complete product lifecycle.
- Critical elements address contents related to e.g. product risks, architectural challenges, key features, key technology decisions, key supplied features, relevant safety and security contents.
- The identification, prioritization and monitoring of critical elements is a continuous activity.
- Critical elements should be addressed by potentially shippable work increments.
- Many agile approaches are built for adapting to uncertainty in early stages of development (see MAN.5 for risk management).

Agile Work Products: Prototypes, Potentially shippable work increment, Product backlog
(e.g., contents characterized as critical elements), Impediments (Risks)

Supporting Agile Principles 1, 2, 4, 7, 9, 10, 11

Estimate Work. Perform a high-level estimate on all backlog items. Estimate and prioritize work for the upcoming iteration cycles to ensure a common understanding of the work content within the team (of teams). Refine and adapt estimates to continuously improve team collaboration and the quality of the product backlog. [\[OUTCOME 7\]](#)

Notes & Definitions:

- A high level estimate helps to gauge the overall feasibility of vision and strategic themes.
- Work estimation requires sufficiently small backlog items fitting within the upcoming iteration cycle, i.e., satisfying a DoR and considering (potential) impediments.
- The selection of work items for estimation should be driven by priority and business value.
- Typically, agile estimation is based on experts discussing estimates to achieve a shared understanding and consensus.
- Appropriate estimation method and recorded estimation data from previous estimates should be used, i.e., based on estimating complexity, relative size, historical data or analogy.
- Usually, the estimation method is continuously evaluated and refined.

Agile Work Products: *Product backlog, Tasks*

Supporting Agile Principles 3, 7, 8, 10, 12

Work Planning. Plan and realize the content of the upcoming iteration cycles based on estimates and definitions of ready and done. [\[OUTCOME 8\]](#)

Notes & Definitions:

- Typically, there are different levels of planning related to iteration cycles depending on the complexity of the product and team of teams (e.g., sprints and releases).
- In general, work planning should consider actual team member capacity, availability and velocity as well as the recorded work approach, dependencies and feasibility.
- Planning is usually based on selecting (pulling) content from the prioritized product backlog meeting DoR criteria, estimates, overall vision and strategic themes.
- Typically, planned work for each level is the result of a planning workshop for the upcoming iteration cycles by focusing on the near and known future.
- Typically, the team decides on the work distribution mechanisms within the team (of teams), e.g., principles like push, pull, round robin.
- Typically, work is planned to avoid multitasking and by limiting the amount of work in progress; i.e. interruption and segmentation of activities is reduced to a minimum.
- Typically, one or multiple iterations form a potentially shippable work increment (SWI)= Release. Being potentially shippable does not mean the results have to be delivered to customers. Shipping is a recorded business decision and should provide customer value and feedback.
- The term “sample” is often used in automotive for a larger shippable work increment containing results of multiple iteration cycles and disciplines.

Agile Work Products: Product backlog, Tasks (e.g., part of the backlog), Plan for the upcoming activities in a task list, Shippable work increment (SWI) = Release

Supporting Agile Principles 1, 3, 4, 5, 7, 8, 9, 10, 11, 12

Base practices

BP9

Inspect and Adapt. Inspect, measure and visualize the status and progress of work. Adapt as needed to ensure consistency and to manage impacts on strategic themes and vision. [\[OUTCOME 9\]](#)

Notes & Definitions:

- Intervals and events to inspect the status depend on the complexity of the product and team of teams (e.g., small iterations on team level and larger increments on team of teams or program level).
- Typically, progress and status of work of a team is visible and reviewed daily.
- Measurements are typically related to team (of teams) capacity, velocity, and rate of completion based on agreed to Definition of Ready and Definition of Done.
- The status is usually visible on demand at any time by physical or online team boards or charts.
- Transparency supports achieving consistency among current and overall planning, product backlog, team skills and team capacity to ensure a sustainable pace.

Agile Work Products: *Reporting, Tasks, (updated) Product backlog, (updated) Vision and strategic themes*

Supporting Agile Principles 1, 5, 6, 7, 8

DRAFT - READY FOR PILOTING - FEEDBACK WELCOME

Manage Impediments. Identify, monitor, and resolve impediments within and across iteration cycles by teams (of teams). [OUTCOME 10]

Notes & Definitions:

- An impediment is any issue or risk towards either achieving current iteration/increment goals or likely affecting planned work or visions and strategic themes (potential impediment = risk).
- Managing impediments supports consistency among current planning and vision, product backlog, and team capacity to ensure a sustainable pace.
- Impediments are typically identified by the team (of teams) while reviewing the progress of work. Addressing them helps in adapting work planning as well as vision and strategic themes.
- Work resulting from impediments is typically managed as backlog item.

Agile Work Products: *Implementation backlog, Tasks, (updated) Backlog, (updated) Vision and strategic themes*
Supporting Agile Principles 1, 5, 6, 7, 8

Improve Work Approach.

Inspect and adapt the work approach based on short learning cycles within the team (of teams). [\[OUTCOME 3\]](#)

Notes & Definitions:

- The way of working in the team (of teams) is regularly discussed to identify improvements to the recorded work approach.
- Typically current processes, interfaces, and work products are inspected as part of the work approach and adapted at least per iteration cycle and event driven.
- Improvement work from identified improvements is typically managed as part of the backlog.

Agile Work Products: (updated) Work Approach, (updated) Definition of Done (DoD),
(updated) Definition of Ready (DoR), Tasks

Supporting Agile Principles 5, 6, 12

DRAFT - READY FOR PILOTING - FEEDBACK WELCOME

AGL.2 Partner Collaboration Management – Purpose and Outcomes

The purpose of the Partner Collaboration Management Process is to achieve common project goals in collaboration with a partner.

Agile Process Outcomes

1. Information is shared as agreed between partners;
2. The collaboration model is documented in the collaboration agreement and up to date;
3. Transparency is established by continuous alignment and synchronization between partners;
4. Risks and impediments are managed collaboratively;
5. Technical approach and content are in line with shared Product Vision; and
6. Progress of all partners is continuously and jointly inspected.

DRAFT - READY FOR PILOTING - FEEDBACK WELCOME

AGL.2 Partner Collaboration Management – Practice Summary

- BP1 Establish a collaboration model.** Establish and maintain an agreement on how partners collaborate, how and how often they align and synchronize, and which information is shared among the partners.
- BP2 Share information.** Establish communication to share all agreed information between partners.
- BP3 Establish a technical approach.** A technical approach is jointly developed, agreed upon and kept up to date on a regular basis as documented in the collaboration agreement.
- BP4 Review joint technical content.** Perform reviews on jointly developed technical content with regard to Acceptance Criteria and Definition of Done on regular basis as agreed in the collaboration model.
- BP5 Inspect joint progress.** Measure, visualize, and inspect joint progress continuously with regard to quality, effort, cost and schedule against plan. Identify technical and business risks, impediments, and deviations from desired status collaboratively.
- BP6 Act on risks, impediments, and deviations.** Mitigate technical and business risks, impediments, and deviations from desired status collaboratively.

DRAFT - READY FOR PILOTING - FEEDBACK WELCOME

BP1

Establish a collaboration model. Establish and maintain an agreement on how partners collaborate, how and how often they align and synchronize, and which information is shared among the partners. [OUTCOME 1, 2, 3]

Notes & Definitions:

- *Ensure that the collaboration model is based on a common understanding regarding roles, meetings, and artifacts.*
- *While cooperation is a loosely coupled group work, agile collaboration is characterized by a teamwork with a common goal, continuous alignment and synchronization.*
- *A Collaboration Agreement typically includes e.g., communication mechanisms with escalation paths and urgent problem resolution, meeting structure, technical and organizational interfaces, infrastructure, roles including skills and responsibility split, and ownership of artifacts.*

Agile Work Products: Collaboration agreement, Product vision, Definition of Done

Supporting Agile Principles 4, 6, 11

Base practices

BP2

Share information. Establish communication to share all agreed information between partners.

[OUTCOME 1, 2, 3]

Notes & Definitions:

- *In agile context, a suitable meeting structure may encompass Queue Replenishment, Product Backlog Refinement, Iteration Planning, Stand up, Iteration Review, Retrospective. These collaborative activities highly depend on self organization of the team (of teams).*
- *Information to be shared may include technical content, acceptance criteria, status, risks, impediments, and open points.*
- *Collaboration in an agile environment requires a common Definition of Ready and Definition of Done. It is up to the team (of teams) to complement the agreed minimum set by own criteria.*

Agile Work Products: Collaboration agreement, Product vision, Product roadmap, Product backlog, Open item list, Risk list, Definition of Ready, Definition of Done, Impediment backlog

Supporting Agile Principles 4, 6, 8, 12

DRAFT - READY FOR PILOTING - FEEDBACK WELCOME

Base practices

BP3

Establish a technical approach. A technical approach is jointly developed, agreed upon and kept up to date on a regular basis as documented in the collaboration agreement. [OUTCOME 1, 3, 4, 5]

Notes & Definitions:

- *Constraints , risks , assumptions , and open items are , considered.*
- *The technical approach is aligned with the agile work approach (see AGL.1).*

Agile Work Products: Product vision, Product backlog, Impediment backlog, Definition of Done / Definition of Ready, Review record, Open item list, Risk list

Supporting Agile Principles 2, 4, 5, 6, 9, 10, 11, 12

DRAFT - READY FOR PILOTING - FEEDBACK WELCOME

Base practices

BP4

Review joint technical content. Perform reviews on jointly developed technical content with regard to Acceptance Criteria and Definition of Done on regular basis as agreed in the Collaboration Agreement. [OUTCOME 1, 2, 3, 5]

Notes & Definitions:

- *If rework is required, prioritize, plan and track work packages to closure. Ensure that the joint technical content is in line with shared Product Vision.*
- *Acceptance Criteria are applicable to individual work packages.*
- *Definition of Done is to be considered for the work packages of the same type.*

Agile Work Products: Product vision, Product roadmap, Product backlog, Iteration backlog, Definition of Done, Review record, Open item list

Supporting Agile Principles 1, 2, 3, 4, 6, 7, 9, 10, 11, 12

DRAFT - READY FOR PILOTING - FEEDBACK WELCOME

Base practices

BP5

Inspect joint progress. Measure, visualize, and inspect joint progress continuously with regard to quality, effort, cost and schedule against plan. Identify technical and business risks, impediments, and deviations from desired status collaboratively. [OUTCOME 1, 3, 4, 6]

Notes & Definitions:

- *Quality, effort, cost, and schedule can be monitored by metrics and KPIs agreed by the partners.*
- *Inspect is the ability of a team (of teams) to detect deviations from desired status.*

Agile Work Products: Iteration/release burndown chart or cumulative flow diagram, Velocity chart, Open item list, Risk list, Impediment backlog

Supporting Agile Principles 4, 5, 6, 7, 8, 12

DRAFT - READY FOR PILOTING - FEEDBACK WELCOME

Base practices

BP6

Act on risks, impediments, and deviations. Mitigate technical and business risks, impediments, and deviations from desired status collaboratively. [OUTCOME 1, 4]

Notes & Definitions:

- *Prioritize, plan and track open points to closure. In case of deviations from the desired status, jointly identify root causes, introduce countermeasures and prevent reoccurrence.*
- *Adaption is the ability of a team (of teams) to timely adjust to an everchanging environment.*

Agile Work Products: Collaboration agreement, Product vision, Product roadmap, Product backlog, Definition of Done, Open item list, Risk list, Impediment backlog

Supporting Agile Principles 1, 2, 3, 4, 5, 9, 10, 11

DRAFT - READY FOR PILOTING - FEEDBACK WELCOME

AGL.3 Agile Quality Assurance – Purpose and Outcomes

The purpose of Agile Quality Assurance is to independently identify, track to closure, escalate and further prevent impediments affecting the achievement of quality objectives.

Agile Process Outcomes

1. quality objectives in line with work boundaries, vision, strategic themes, work approach and governance criteria are collaboratively identified;
2. a quality assurance strategy to identify and independently communicate impediments in achieving quality objectives is jointly defined and kept up to date;
3. conformance of actual work products and processes to agreed work approach and applicable governance criteria is ensured;
4. impediments affecting quality objectives are recorded and communicated to relevant stakeholders;
5. impediments affecting quality objectives are tracked to closure and their re-occurrence is prevented;
6. mechanisms and authority to escalate non resolution of impediments within and beyond the agile team (of teams) are established and effective.

DRAFT - READY FOR PILOTING - FEEDBACK WELCOME

AGL.3 Agile Quality Assurance (AQA) – Practice Summary

- BP 1 Identify quality objectives.** Collaboratively identify and agree on quality objectives in line with work boundaries, vision, strategic themes, work approach, and governance criteria.
- BP 2 Define a quality assurance strategy.** Jointly define and record a quality assurance strategy to identify and independently communicate impediments in achieving quality objectives.
- BP 3 Ensure conformance.** Ensure the conformance of actual work products and processes as implemented by the agile team (of teams) to agreed work approach and applicable governance criteria.
- BP 4 Record impediments.** Record impediments affecting the achievement of quality objectives and communicate them to relevant stakeholders.
- BP 5 Resolve impediments.** Track impediments affecting the achievement of quality objectives to closure and prevent their re occurrence.
- BP 6 Establish escalation mechanisms.** Establish mechanisms and authority to escalate non resolution of impediments within and beyond the agile team (of teams).
- BP 7 Ensure effective escalation.** Ensure the resolution of escalated impediments by adequate governance and decision making bodies.
- BP 8 Inspect and adapt.** Inspect and adapt the quality assurance strategy based on short learning cycles within the agile team (of teams).

DRAFT - READY FOR PILOTING - FEEDBACK WELCOME

BP1

Identify quality objectives. Collaboratively identify and agree on quality objectives in line with work boundaries, vision, strategic themes, work approach and governance criteria. [\[OUTCOME 1\]](#)

Notes & Definitions:

- *Quality objectives*
 - *encompass the work approach selected by the agile team (of teams) as well as the relevant governance processes of the organization,*
 - *are agreed collaboratively,*
 - *are achieved by the agile team (of teams) across the iterations.*
- *Quality objectives lead to the establishment of suitable work processes and quality characteristics for the work products.*
- *Among other, criteria for contents definition, structure, review, approval of work products as well as any other criterion derived from standards are part of the quality objectives.*

Agile Work Products: Quality objectives

Supporting Agile Principles 1, 3, 4

BP2

Define a quality assurance strategy. Jointly define and record a quality assurance strategy to identify and independently communicate impediments in achieving quality objectives. [\[OUTCOME 2\]](#)

Notes & Definitions:

- *The agile team (of teams) is jointly responsible for the quality of their processes and work products.*
- *The strategy encompasses the quality of work processes and developed products.*
- *The strategy includes the quality assurance of supplier deliverables.*
- *The strategy addresses methods to identify, track to closure, escalate and further prevent impediments affecting the achievement of quality objectives.*
- *The strategy includes the communication of impediments independently from the development team.*
- *Agile quality assurance may make use of the results of other processes such as e.g. iteration reviews and retrospectives, problem analysis, reports.*
- *The strategy is agreed to, recorded and communicated.*

Agile Work Products: Agile quality strategy, Quality plan

Supporting Agile Principles 2, 4, 6, 12

BP3

Ensure conformance. Ensure the conformance of actual work products and processes as implemented by the agile team (of teams) to agreed work approach and applicable governance criteria. [\[OUTCOME 2, 3\]](#)

Notes & Definitions:

- Typically, criteria for the quality of processes and work product are defined, e.g. in a DoR and DoD.
- Quality assurance activities are planned, e.g. as part of the backlog and iteration planning.
- Quality assurance checks objectively for each release that work products and processes are aligned with the work approach and the applicable governance criteria.
- The agile methodology followed by the agile team (of teams) is also verified.

Agile Work Products: Review record

Supporting Agile Principles 1, 3, 5

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BP4

Record impediments. Ensure the conformance of actual work products and processes as implemented by the agile team (of teams) to agreed work approach and applicable governance criteria. [\[OUTCOME 4\]](#)

Notes & Definitions:

- *Record impediments that affect the achievement of quality objectives.*
- *Communicate regularly with the team (of teams) regarding impediments and desired performance. This can happen at various levels, during daily stand ups, during iteration reviews and retrospectives, etc.*
- *The agile team (of teams) plans in the backlog the corrective actions necessary to resolve the recorded impediments.*
- *Communication can include metrics, risks, qualitative feedback, etc.*
- *Metrics relevant to process and product quality can be present. This can include (but not limited to) velocity forecasts, defect trends, increments released per gate, etc.*
- *Communication should be based on the perspective relevant for the recipient agile team (of teams), management, customer.*

Agile Work Products: Impediment backlog, Backlog, Communication record

Supporting Agile Principles 6, 7, 12

BP5

Resolve impediments Track. Track impediments affecting the achievement of quality objectives to closure and prevent their re-occurrence. [OUTCOME 5]

Notes & Definitions:

- *Ensure that impediments are correctly understood by relevant stakeholders.*
- *Ensure that resolving and closing of impediments are planned by the agile team(of teams).*
- *Track and verify the closure of impediments.*
- *Analyse and communicate root causes of re-occurring impediments.*
- *Support the agile team (of teams) to avoid impediment re occurrence.*

Agile Work Products: Impediment backlog, Backlog, Communication record

Supporting Agile Principles 6, 8, 12

BP6

Establish escalation mechanisms. Establish mechanisms and authority to escalate non resolution of impediments within and beyond the agile team(of teams). [\[OUTCOME 6\]](#)

Notes & Definitions:

- *The escalation path is known by each team member and those that contribute to the team.*
- *The escalation path begins with the team as the starting point Typically, the path ends with the highest authority in the organisation.*
- *The escalation path is typically recorded e g by an organigram.*
- *The escalation path is accessible to anyone in the organisation.*
- *The impediment backlog is visible at least to anyone in the escalation path and the team (of teams).*

Agile Work Products: Escalation path, Communication record, Impediment backlog

Supporting Agile Principles 1, 3, 4, 7, 8, (9)

BP7

Ensure effective escalation. Ensure the resolution of escalated impediments by adequate governance and decision-making bodies. [OUTCOME 6]

Notes & Definitions:

- *Primarily, the agile team (of teams) is jointly responsible for resolving impediments and collaborates closely with the person who tracks their impediments to closure*
- *Each member in the escalation path maintains seamless communication to its lower and its upper partners in the path*
- *The agile quality assurance responsible acts as 'escalation guard' and is empowered to involve higher authorities of the escalation path, if necessary*
- *Any escalation rationale, decision, action and effect is recorded in the impediment backlog*

Agile Work Products: Escalation record, Communication record, Impediment backlog

Supporting Agile Principles 1, 3, 4, 7, 8, (9)

BP8

Inspect and adapt. Inspect and adapt the quality assurance strategy based on short learning cycles within the agile team (of teams). [OUTCOME 1, 2]

Notes & Definitions:

- *The quality strategy typically considers different organizational levels of development*
- *Inspect and adapt events take place regularly in a collaborative way with the agile team (of teams) and relevant stakeholders*
- *The learning aspects consider multiple views, including management, teams and customer*
- *The adaptations of quality strategy and/or objectives are consistent with the organisation strategy and reflect customer quality needs*
- *The adaptations and learnings are reflected and made visible, e g in retrospectives by maintaining DoD and DoR criteria*

Agile Work Products: Quality plan, Agile quality strategy, Quality objectives, Meeting records

Supporting Agile Principles 4, 8, 12

Intacs™ working group Agile SPICE™

Lead	Christian Knüvener (christian.knuevener@knuevenermackert.com)
Co-Lead	Christian Hertneck (christian.hertneck@kuglermaag.com)
Extended Team	Alexander De Jong (KMC), Annu George (Aptiv), Carola Schweizer (KMC), Cenk Yazer (KMC), Claudia Salazar Dorn (KnüvenerMackert), Dominik Feurer (Porsche), Florian Kneis (KMC), H.D. Müller, Hendrik Meyl (MunichSafety), Klaus Hörmann (KMC), Le-Roy Graeff (Student), Niclas Knapp (Bosch), Peter Petersen (Sharpen360), Reinhold Volk (KMC), Rajesh Ganji (ZF), Rocio Rojas (KMC), Rüdiger Bayer (KnüvenerMackert), Rüdiger Heimgärtner (KnüvenerMackert), Sergej Weber (KMC), Stefan Weber (Continental), Stephan Müller (T-Systems), Tobias Maier (MethodPark)
Reviewers	Achim Gerber (KnüvenerMackert), Alexander Mackert (KnüvenerMackert), Lars Dittmann (VW), Stefan Weber (Continental)

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About intacs™

intacs™ is an independent and legally registered non-profit organization. intacs works almost exclusively with volunteers and is open, transparent, global and multilingual. The goal is to ensure high quality assessor qualification for process assessments according to ISO/IEC 15504 and 33002.

intacs™ was founded to improve assessments, to reduce variations in the quality of assessment results and to improve their comparability.

In order to reach these goals, intacs™:

- sets training and certification standards for ISO/IEC 15504 and 33002 assessors
- sets standards for maintaining assessor competence
- promotes assessment models and community interactions

intacs™ is accepted by the automotive industry and the VDA AK 13 (working group responsible for defining process requirements for car manufacturers and suppliers).

Benefits

For individuals interested in becoming an assessor

- You can be sure that you are trained by an accredited training provider with approved up-to-date training material reflecting the latest technical community knowledge.
- You have access to the list of these training providers and their instructors.
- You can rely on instructors to be the most experienced assessors in the community who have extensive training experience



International Assessor Certification Scheme e.V. (intacs) **intacs operation**



Herderstr. 7 51147 Köln
+49 (0)700 46822746 (intacsinfo)



www.intacs.info
office@intacs.info

CERTIFICATION BODIES:



European Certification &
Qualification Association

(ECQA)
Piaristengasse 1
A-3500 Krems
info@ecqa.org
www.ecqa.org



VDA QMC
Behrenstraße 35
D-10117 Berlin
info@vda-qmc.de
www.vda-qmc.de

intacs.info



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