SOFTWARE DEVELOPMENT METHODOLOGIES

WATERFALL	VS	AGILE
Sequential		Flexible
Fixed plan		Adaptive
Testing at the end		Ongoing testing
Limited client involvement		Continuous client involvement
Detailed documentation		Lean documentation
Risks managed upfront		Continuous risk management

SOFTWARE DEVELOPMENT **METHODOLOGIES**

WATERFALL

- **Sequential:** A step-by-step approach where each phase must be completed before the next begins.
- **Fixed plan:** A predefined and rigid structure that guides the entire process with little to no deviation.
- **Testing at the end:** Product testing occurs only after all development stages have been completed.
- **Limited client involvement:** Clients are primarily engaged at the beginning for requirements and at the end for delivery.
- **Detailed documentation:** Comprehensive documentation is created upfront to define requirements, processes, and deliverables.
- **Risks managed upfront:** Potential risks are identified and mitigated during the initial planning stages.

SOFTWARE DEVELOPMENT **METHODOLOGIES**

WATERFALL

PROS

- Clear Structure and Phases
- Thorough Documentation
- Predictable Timelines and Budgets
- Easier to Track Progress
- Suitable for Stable Requirements
- Simple Client Involvement

CONS

- Inflexible & Difficult to Change
- Delayed Feedback
- Potential for Client Dissatisfaction
- High Upfront Effort
- Risk of Misaligned Requirements
- Unsuitable for Complex or Unpredictable Projects

SOFTWARE DEVELOPMENT **METHODOLOGIES**

AGILE

- **Flexible:** Easily accommodates changes and adjustments throughout the development process.
- **Adaptive:** Responds dynamically to evolving requirements and stakeholder needs.
- **Ongoing Testing:** Testing is integrated throughout development to catch and address issues early.
- **Continuous Client Involvement:** Clients are engaged regularly to provide feedback and ensure alignment.
- **Lean Documentation:** Focuses on essential documentation, reducing overhead while maintaining clarity.
- **Continuous Risk Management:** Identifies and mitigates risks iteratively during the project lifecycle.

SOFTWARE DEVELOPMENT **METHODOLOGIES**

AGILE

PROS

- Flexibility and Adaptability
- Early and Continuous Feedback
- Improved Quality
- Faster Time-to-Market
- Enhanced Collaboration
- Reduced Risk

CONS

- Unclear Timelines and Budgets
- Documentation Gaps
- Potential for Scope Creep
- Resource Intensive
- Steep Learning Curve (if used to waterfall)
- Team Dependency

SOFTWARE DEVELOPMENT **METHODOLOGIES**

SUMMARY

- While the Waterfall approach is effective for predictable, well-defined projects, its rigidity and lack of adaptability make it less suitable for dynamic, complex, or client-driven environments.
- Conversely, Agile is ideal for dynamic, client-focused projects where adaptability and frequent delivery of value are priorities, but it requires skilled teams and strong communication to manage potential challenges like scope creep and resource demands.
- Most organisations will not benefit from an either / or approach and it will likely depend on the overall commitment from the business. As a general rule, Project Management more traditionally lends itself to waterfall and is therefore favoured for onboarding of big customers. Whereas Product Management benefits more from an agile approach, allowing teams to pivot in response to changing demands.
- If you need support on defining which approach works best for your business, you can schedule a consultation via our website at the link below.