The Complete 4-Week Discovery & Foundation Playbook

Overview

This playbook delivers Fortune 500-level development maturity at startup economics using AI-driven artifact generation with strategic human validation.

Economic Model: AI generates 90% of documentation, humans provide 10% strategic validation = 95% cost reduction vs traditional enterprise development.

WEEK 1-2: BUSINESS DISCOVERY STAGE

Lead Agent: Business Analysis Agent (BAA)
Human Validators: Product Owner, Business Stakeholders

Inputs Required

- Initial business concept
- Target market definition
- Basic requirements outline

AI-Generated Artifacts

1. Business Case Document (BCD)

Contents:

- Market analysis with competitive landscape
- Value proposition and differentiation
- Revenue model and pricing strategy
- Financial projections and ROI analysis

2. Stakeholder Analysis Report (SAR)

Contents:

- Detailed user personas (demographics, pain points, goals)
- Stakeholder mapping (power/interest grid)
- Influence assessment and engagement strategy
- Communication plan per stakeholder group

3. Business Requirements Document (BRD)

Contents:

- High-level business objectives (SMART format)
- Success metrics and KPIs
- Business constraints and assumptions
- Scope definition (in/out of scope)

4. Market Fit Analysis (MFA)

Contents:

- Target market validation (TAM/SAM/SOM)
- Go-to-market strategy
- Customer acquisition cost projections
- Competitive positioning matrix

5. Risk Assessment Report (RAR)

Contents:

- Business risks (market, competitive, operational)
- Probability and impact assessment
- Mitigation strategies
- Contingency plans

Quality Gate 1.1: Business Foundation Validation

Human Review Focus:

- Business logic accuracy
- Market assumptions validation
- Stakeholder buy-in achieved

Validation Criteria:

- ✓ Business case viability ≥80% confidence
- ✓ All key stakeholders aligned
- ✓ Market opportunity quantified with data
- ✓ Risk mitigation strategies defined

Approval Required: Product Owner + Key Business Stakeholders

Gate Output: Signed-off foundation documents OR revision requests with specific feedback

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WEEK 2-3: TECHNICAL FOUNDATION STAGE

Lead Agent: Technical Strategy Agent (TSA)
Human Validators: Technical Lead, Senior Architect

Inputs Required

- Approved Business Requirements Document
- Technical constraints (existing systems, team skills)
- Scalability requirements (expected growth 1-3 years)

AI-Generated Artifacts

1. Technical Strategy Document (TSD)

Contents:

- Technology stack selection with justification
- Architecture principles and patterns
- Scaling strategy (vertical/horizontal)
- Technology roadmap (12-24 months)

2. System Architecture Blueprint (SAB)

Contents:

- High-level system design (C4 model diagrams)
- Integration patterns and APIs
- Data flow architecture
- Service/module decomposition
- Database architecture strategy

3. Infrastructure Planning Document (IPD)

Contents:

- Cloud strategy (provider selection, multi-cloud considerations)
- DevOps approach (CI/CD pipeline design)
- Monitoring and observability framework
- Disaster recovery and backup strategy
- Cost optimization approach

4. Security Framework Document (SFD)

Contents:

- Security architecture overview
- Compliance requirements mapping (GDPR, SOC2, etc.)
- Data protection strategy (encryption, access control)
- Authentication and authorization approach
- Security monitoring and incident response

5. Development Standards Guide (DSG)

Contents:

- Coding standards and conventions
- Code quality metrics and thresholds
- Review processes and checklists
- Git workflow and branching strategy
- Documentation standards

Quality Gate 1.2: Technical Foundation Approval

Human Review Focus:

- Technology choices validation (future-proof, team capability)
- Architecture scalability assessment
- Security adequacy for compliance

Validation Criteria:

- ✓ Architecture supports 10x scale without major refactoring
- ✓ Security framework meets enterprise-grade standards
- ✓ Technology stack aligned with team skills + market availability
- ✓ Infrastructure costs modeled and acceptable

Approval Required: Technical Lead + Security Officer (if applicable)

Gate Output: Approved technical foundation OR architectural revisions

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WEEK 3-4: PROCESS & COMPLIANCE SETUP

Lead Agent: Compliance Planning Agent (CPA)
Human Validators: Compliance Officer, Legal Team, Team Leads

Inputs Required

- Approved business requirements
- Approved technical architecture
- Regulatory environment analysis
- Team structure and roles

AI-Generated Artifacts

1. Development Process Manual (DPM)

Contents:

- SEDM implementation guide
- Role definitions and responsibilities (RACI matrix)
- Workflow procedures (story lifecycle, review processes)
- Quality gates and approval workflows
- Escalation procedures

2. Compliance Framework Document (CFD)

Contents:

- Regulatory requirements mapping (by jurisdiction)
- Audit preparation checklist
- Documentation standards for compliance
- Compliance monitoring and reporting
- Third-party vendor compliance requirements

3. Quality Management Plan (QMP)

Contents:

- Quality metrics definition and targets
  - Code coverage: >90% for critical paths
  - Maintainability Index: >85

    - Defect escape rate: <5%
- Testing standards (unit, integration, E2E)
- Defect management process
- Quality assurance roles and responsibilities

4. Project Governance Charter (PGC)

Contents:

- Decision-making authority matrix
- Escalation procedures (timeline, criteria)
- Communication protocols
    - Daily standups, weekly reviews, monthly stakeholder updates
- Change control board structure
- Stakeholder reporting requirements

5. Tool Stack Configuration (TSC)

Contents:

- Development tools setup guide
    - Version control (Git) with branch policies
    - Issue tracking with requirements traceability
    - Documentation platform configuration
- CI/CD pipeline configuration
    - Build automation
    - Automated testing gates
    - Deployment procedures
- Monitoring configuration
    - Application performance monitoring
    - Error tracking and alerting
    - Usage analytics

Quality Gate 1.3: Foundation Readiness

Human Review Focus:

- Process completeness (can team execute?)
- Compliance adequacy (audit-ready?)
- Team readiness (trained and equipped?)

Validation Criteria:

- ✓ All enterprise processes defined and documented
- ✓ Compliance requirements fully addressed
- ✓ Team trained on methodology (workshops completed)
- ✓ Tools configured and tested
- ✓ Quality metrics baseline established

Approval Required: Project Manager + Compliance Officer + Team Leads

Gate Output: GO/NO-GO for MVP development phase

DELIVERABLES SUMMARY

Week 1-2 Output (5 Documents)

1. Business Case Document
2. Stakeholder Analysis Report
3. Business Requirements Document
4. Market Fit Analysis
5. Risk Assessment Report

Week 2-3 Output (5 Documents)

1. Technical Strategy Document
2. System Architecture Blueprint
3. Infrastructure Planning Document
4. Security Framework Document
5. Development Standards Guide

Week 3-4 Output (5 Documents)

1. Development Process Manual
2. Compliance Framework Document
3. Quality Management Plan
4. Project Governance Charter
5. Tool Stack Configuration

Total: 15 enterprise-grade artifacts in 4 weeks

QUALITY METRICS TARGETS

Code Quality

- Maintainability Index: >85
- Cyclomatic Complexity: <10 per function
- Test Coverage: >90% for critical paths
- Technical Debt Ratio: <5%

Process Quality

- Requirements Traceability: 100%
- Documentation Currency: <1 week lag
- Defect Escape Rate: <5%
- Change Success Rate: >95%

Business Quality

- Feature Delivery Accuracy: >90%
- Stakeholder Satisfaction: >8/10
- Time to Market: Within planned timeline
- Budget Adherence: ±10% variance

VALIDATION FRAMEWORK

Validation Roles

Product Owner

- Business requirements validation
- User experience approval
- Feature prioritization decisions
- Stakeholder communication

Technical Lead

- Architecture decisions and reviews
- Code quality validation
- Technology stack decisions
- Technical risk assessment

QA Lead

- Testing strategy approval
- Quality metrics validation
- Defect management
- Release readiness assessment

Security Officer

- Security architecture review
- Compliance validation
- Risk assessment approval
- Audit preparation

Validation Procedures

Design Review Sessions

- Weekly architecture review meetings
- Story design validation sessions
- Security and compliance checkpoints
- Performance and scalability reviews

Code Review Process

- Mandatory peer review for all code
- Automated quality gate checks
- Security vulnerability scanning
- Performance impact assessment

Business Validation

- Sprint demos and stakeholder feedback
- User acceptance testing sessions
- Business value realization reviews
- Market fit validation checkpoints

IMPLEMENTATION CHECKLIST

Pre-Week 1

- [ ] Assemble core team (Product Owner, Tech Lead, Key Stakeholders)
- [ ] Set up AI tooling and access
- [ ] Schedule validation sessions for each quality gate
- [ ] Define success criteria for each phase

Week 1-2 Execution

- [ ] Kick-off meeting with all stakeholders
- [ ] AI generates all 5 business artifacts
- [ ] Product Owner reviews and provides feedback (max 2 revision cycles)
- [ ] Conduct Quality Gate 1.1 validation session
- [ ] Obtain formal sign-off from stakeholders

Week 2-3 Execution

- [ ] Technical kick-off with architecture team
- [ ] AI generates all 5 technical artifacts
- [ ] Technical Lead conducts architecture review
- [ ] Security Officer reviews security framework
- [ ] Conduct Quality Gate 1.2 validation session
- [ ] Obtain technical foundation approval

Week 3-4 Execution

- [ ] Process design workshop with team
- [ ] AI generates all 5 process artifacts
- [ ] Team training on methodology (2-3 sessions)
- [ ] Tool stack setup and testing
- [ ] Conduct Quality Gate 1.3 validation session
- [ ] Obtain GO/NO-GO decision for MVP phase

Post-Week 4

- [ ] Archive all artifacts in documentation platform
- [ ] Establish ongoing compliance monitoring
- [ ] Schedule first MVP sprint planning
- [ ] Begin waterfall-per-story development cycles

SUCCESS INDICATORS

By End of Week 4, You Should Have:

✓ Complete audit trail from business need to technical architecture
✓ Documentation that passes enterprise due diligence

✓ Architecture designed for 100x growth
✓ Security and compliance frameworks in place
✓ Team aligned and trained on processes
✓ Tools configured and ready for development
✓ Clear roadmap for MVP delivery (Weeks 5-12)

Red Flags to Watch:

- Stakeholder alignment <80% on business case
- Technical debt in foundation architecture
- Team resistance to process adoption
- Missing compliance requirements
- Undefined quality metrics
- Tool setup incomplete

NEXT PHASE PREVIEW

Weeks 5-12: MVP Development

With your foundation complete, you'll enter the waterfall-per-story development phase:

- **Week 5:** Epic & Story Planning
- **Weeks 6-11:** Parallel story development cycles (1-2 weeks each)
- **Week 12:** MVP Integration & Release

Each story follows a complete mini-waterfall:

1. Requirements & Design (Days 1-2)
2. Implementation (Days 3-7)
3. Testing & Validation (Days 8-10)

All with enterprise-grade artifacts and quality gates maintained throughout.

ECONOMIC IMPACT

Traditional Enterprise Approach:

- 15 artifacts × 40 hours each = 600 hours
- At $150/hour = $90,000
- Timeline: 3-4 months

SEDM AI-Driven Approach:

- AI generation: 540 hours automated
- Human validation: 60 hours @ $150/hour = $9,000
- Timeline: 4 weeks
- **Savings: $81,000 (90%) and 2-3 months**

SUPPORT & QUESTIONS

This playbook represents the complete Discovery & Foundation phase of the Startup Enterprise Development Methodology (SEDM).

For implementation support, custom artifact templates, or questions about your specific use case, reach out to the Ascendro team.

Remember: The goal isn't documentation for its own sake. It's building foundations that make you investor-ready, enterprise-ready, and scale-ready from day one.