

Risk Register

Risk Register: Bilko

“ **Project:** Bilko — Balkan Accounting SaaS **Version:** 0.1 **Date:** 2026-02-23
Author: John (AI Director) **Status:** Draft **Reviewers:** Alem Bašić (CEO)

Document History

Version	Date	Author	Changes
0.1	2026-02-23	John (AI Director)	Initial draft — Phase 1 risk identification

1. Risk Identification Methodology

Identification Methods Used:

- Team brainstorming session (Date: 2026-02-19, Participants: Alem, John)
- Lessons learned review from Drop (fintech) and BasicFakta projects
- Risk category checklist (see Section 2)
- Regulatory research report (research-bilko-multi-region-2026-02-20.md)
- Assumption analysis (see project charter)
- Technical spike — SEF API documentation review

Initial Risk Assessment Date: 2026-02-23 **Next Scheduled Review:** 2026-03-07 (after backend sprint 1) **Risk Owner:** John (AI Director)

2. Risk Categories

Category	Description	Common Examples
Technical	Technology failures, integration issues, performance, security	SEF API changes, infrastructure limits, unknown complexity
Resource	Team availability, skill gaps, capacity constraints	Agent performance degradation, context window limits
Client	Client-side decisions, availability, requirement volatility	Alem priority shift, regulatory guidance unavailable
External	Third-party dependencies, regulatory changes, market shifts	SEF API deprecation, Pantheon price war, BiH e-invoice delay
Financial	Budget overruns, cost estimates, currency exposure	Underestimated backend complexity, RSD/EUR volatility
Timeline	Schedule risks, deadline pressure, estimation errors	SEF integration longer than planned, beta feedback volume
Quality	Defect rate, technical debt, process failures	Mock data not fully replaced, double-entry logic bugs
Organizational	Internal politics, process changes, leadership decisions	ALAI Serbia entity registration delays, strategic pivot

3. Risk Probability & Impact Scale

3.1 Probability Scale

Level	Score	Definition	Example
Very Low	1	< 10% chance — rare, theoretical	Unknown-unknown
Low	2	10-30% chance — unlikely but possible	Historical precedent rare
Medium	3	30-50% chance — may occur	Has happened on similar projects
High	4	50-70% chance — likely to occur	Happens regularly
Very High	5	> 70% chance — almost certain	Happened before on this type

3.2 Impact Scale

Level	Score	Schedule Impact	Budget Impact	Quality Impact
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Negligible	1	< 1 day	< 1%	Minor fix needed
Minor	2	1-3 days	1-5%	Some rework needed
Moderate	3	3-7 days	5-10%	Significant rework
Major	4	1-2 weeks	10-20%	Deliverable at risk
Critical	5	> 2 weeks	> 20%	Project failure risk

3.3 Risk Matrix (Probability × Impact)

		IMPACT →					
		1(Neg)	2(Min)	3(Mod)	4(Maj)	5(Crit)	
P	5(VH)	5	10	15	20	25	← CRITICAL ZONE (≥15)
R	4(H)	4	8	12	16	20	
O	3(M)	3	6	9	12	15	
B	2(L)	2	4	6	8	10	← MEDIUM ZONE (5-14)
↑	1(VL)	1	2	3	4	5	← LOW ZONE (≤4)

Score	Risk Level	Response Required	Escalation
1-4	LOW	Monitor; review monthly	John awareness
5-9	MEDIUM	Active mitigation plan required	John
10-14	HIGH	Immediate action + weekly review	John + Alem
15-25	CRITICAL	Emergency response; may stop project	John + Alem

4. Risk Appetite Statement

Overall Risk Appetite: Medium

Risk Category	Appetite	Rationale
Technical	Medium	Known stack (Next.js/Express/PostgreSQL); SEF integration is novel but researched
Financial	Low	€17K ceiling is fixed; overruns require CEO approval
Quality	Low	Accounting software errors have direct financial/legal consequences for users

Risk Category	Appetite	Rationale
Timeline	Medium	May 2026 launch preferred but not contractually bound
Security	Very Low	Financial data; GDPR-adjacent; zero tolerance for breaches
Regulatory	Very Low	SEF non-compliance means users face fines; must be correct

Maximum Acceptable Risk Exposure: Score ≤ 9 without escalation to Alem. **Escalation Threshold:** Any risk scoring ≥ 10 must be reported to Alem within 24 hours.

5. Active Risk Register

ID	Risk Description	Category	Prob (1-5)	Impact (1-5)	Score	Response Strategy	Owner	Trigger Indicators	Status	Date Identified	Review Date
R-001	SEF API changes breaking interface between development and launch	External	3	4	12	Mitigate	John	SEF change log; API versioning notice from APR	Open	2026-02-23	2026-03-07
R-002	Serbian tax authority mandates software certification for SEF integration	External	2	5	10	Mitigate	Alem + Asmir	Official gazette announcements; APR bulletins	Open	2026-02-23	2026-03-07

ID	Risk Description	Category	Prob (1-5)	Impact (1-5)	Score	Response Strategy	Owner	Trigger Indicators	Status	Date Identified	Review Date
R-003	Backend complexity underestimated — 50 endpoints take >4 weeks	Technical	3	3	9	Mitigate	John	Sprint 1 velocity below 20 endpoints/week	Open	2026-02-23	2026-03-07
R-004	Double-entry accounting logic bugs in transaction engine	Quality	3	5	15	Mitigate	John	Balance sheet doesn't balance in test data; debit ≠ credit	Open	2026-02-23	2026-03-07
R-005	RSD/BAM exchange rate API unavailable or unreliable	External	2	3	6	Mitigate	Tech Lead	API timeout errors; stale rates in production	Open	2026-02-23	2026-03-07
R-006	ALAI Tech d.o.o. Serbia registration delayed beyond launch date	Organizational	3	4	12	Mitigate	Alem	No progress update on registration by 2026-04-01	Open	2026-02-23	2026-04-01

ID	Risk Description	Category	Prob (1-5)	Impact (1-5)	Score	Response Strategy	Owner	Trigger Indicators	Status	Date Identified	Review Date
R-007	Mock data not fully replaced before beta — beta testers see dummy data	Quality	4	3	12	Mitigate	John	Mock-data.ts still imported in any production component	Open	2026-02-23	2026-03-14
R-008	Pantheon launches competitive cloud product undercutting Bilko's positioning	External	2	3	6	Accept	John	Pantheon product announcements; press releases	Open	2026-02-23	2026-06-01
R-009	Beta testers find critical UX issues requiring major redesign	Quality	3	3	9	Mitigate	John	> 3 beta testers independently report same confusion point	Open	2026-02-23	2026-04-21
R-010	Currency volatility (RSD/EUR) affects pricing model attractiveness	Financial	3	2	6	Accept	Alem	RSD depreciation > 10% vs EUR in 3 months	Open	2026-02-23	2026-05-01

ID	Risk Description	Category	Prob (1-5)	Impact (1-5)	Score	Response Strategy	Owner	Triggers Indicators	Status	Date Identified	Review Date
R-011	BiH e-invoice specs (CPF) released earlier than 2027, requiring faster expansion	External	2	2	4	Monitor	John	CPF official announcement	Open	2026-02-23	2026-06-01
R-012	PostgreSQL performance under load — N+1 queries in report generation	Technical	3	3	9	Mitigate	Tech Lead	Slow query logs; report generation > 2s in load test	Open	2026-02-23	2026-03-28

6. Risk Response Strategies

Risk ID	Strategy	Response Actions	Contingency Plan	Resources Required
R-001	Mitigate	1. Abstract SEF calls behind <code>SefService</code> interface; 2. Pin to tested API version; 3. Monitor APR changelog weekly	Roll back to previous SEF API version; manual invoice submission as temporary workaround	Tech Lead: 1 day for abstraction layer
R-002	Mitigate + Monitor	1. Asmir monitors official gazette; 2. John follows APR developer portal; 3. Legal review before launch	Delay Serbia launch until certification obtained; Croatia launch moved up	Asmir: 2h/week monitoring

Risk ID	Strategy	Response Actions	Contingency Plan	Resources Required
R-003	Mitigate	1. Break backend into 5-endpoint weekly sprints; 2. Daily progress check at 10-endpoint milestones; 3. Scope reduction lever (defer banking module)	Reduce Phase 1 scope to 40 core endpoints; banking deferred to Phase 1.1	John: daily sprint monitoring
R-004	Mitigate	1. Write comprehensive double-entry unit tests before any feature; 2. Balance sheet validation test in CI; 3. Code review by John on all Transaction model changes	Manual audit by qualified accountant (Asmir's team) before launch	QA agent: 3 days dedicated accounting logic tests
R-005	Mitigate	1. Implement fallback to ECB free API; 2. Cache exchange rates with 4-hour TTL; 3. Manual rate override UI for accountants	Disable auto-conversion; flag manual rate entry required	Tech Lead: 0.5 days for fallback
R-006	Mitigate	1. Alem tracks registration weekly; 2. Launch in Croatia (EU-compliant) if Serbia entity delayed; 3. Investigate operating under SnowIT (BiH) during gap	Soft launch under ALAI Holding AS (Norway) with Serbian VAT documentation	Alem: legal counsel consultation
R-007	Avoid	1. CI check: grep for mock-data.ts imports in src/ — fail build if found outside test files; 2. Feature flag: MOCK_DATA=false in staging/production; 3. Every PR blocked if mock import detected	Manual audit of all 8 modules before beta onboarding	Hook: CI grep check; 0.5 days
R-008	Accept	Monitor Pantheon announcements; maintain UX and price advantage	Accelerate feature roadmap; increase marketing spend	John: 1h/month competitive monitoring

Risk ID	Strategy	Response Actions	Contingency Plan	Resources Required
R-009	Mitigate	1. Structured beta feedback form; 2. Session recording for confusion points; 3. 2-sprint buffer between beta end and launch	Delay launch by 2 weeks maximum; only block on P1 UX issues	John: beta program coordination
R-012	Mitigate	1. Add database indexes before launch; 2. Load test reports module specifically; 3. Implement query result caching for reports	Async report generation with job queue if sync too slow	Tech Lead: 1 day performance audit

Response Strategy Definitions

Strategy	When to Use	Action
Avoid	High score + feasible to eliminate	Change plan to remove the risk source
Mitigate	Cannot avoid; must reduce probability or impact	Implement controls, monitoring, early warning systems
Transfer	Risk can be shared with third party	Insurance, contractual liability transfer, outsourcing
Accept (Active)	Low score; mitigation cost > risk cost	Monitor and create contingency plan
Accept (Passive)	Negligible score	Acknowledge, no action required
Escalate	Exceeds project authority or appetite	Raise to Alem

7. Risk Heat Map

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quadrantChart
  title Risk Heat Map – Bilko Phase 1
  x-axis Low Impact --> High Impact
  y-axis Low Probability --> High Probability
  quadrant-1 "CRITICAL – Immediate Action"
  quadrant-2 "HIGH – Active Management"
  quadrant-3 "LOW – Monitor"

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quadrant-4 "MEDIUM – Watch"

R-001 SEF API change: [0.7, 0.55]

R-004 Double-entry bugs: [0.9, 0.55]

R-002 Certification mandate: [0.9, 0.35]

R-006 Serbia entity delay: [0.7, 0.55]

R-007 Mock data in prod: [0.55, 0.75]

R-003 Backend complexity: [0.55, 0.55]

R-009 Beta UX issues: [0.55, 0.55]

R-005 Exchange rate API: [0.55, 0.35]

R-008 Pantheon competition: [0.55, 0.35]

R-011 BiH early launch: [0.35, 0.35]

“ Update coordinates as Probability/Impact scores change. $X = \text{Impact}/5$, $Y = \text{Probability}/5$.

8. Escalation Thresholds

Threshold	Action	Responsible	Timeframe
Any new risk Score ≥ 15	Immediate escalation to Alem	John	Within 4 hours of identification
Any existing risk score increases by ≥ 5	Escalate to Alem	John	Within 24 hours
> 2 risks at Score ≥ 12 simultaneously	Emergency risk review with Alem	John	Within 48 hours
Any risk triggers its contingency plan	Notify Alem	John	Immediately
Risk causes milestone slip > 5 days	Formal escalation + revised timeline	John	Within 24 hours

9. Risk Review Schedule

Frequency	Activity	Participants	Output
Weekly (Sprint Planning)	Review all active risks, update scores/status	John	Updated register

Frequency	Activity	Participants	Output
Sprint Retrospective	Identify new risks; close resolved risks	John	New risks added
Monthly	Full risk register review + heat map update	John + Alem	Risk report
Ad-hoc	New risk identified (any time)	John	New risk logged within 24h
Pre-launch	Risk review before Serbia production launch	John + Alem + Asmir	Go/no-go input

Review Log

Date	Reviewer	Risks Reviewed	New Risks Added	Risks Closed	Key Changes
2026-02-23	John	12	12	0	Initial population

10. Closed / Accepted Risks Archive

ID	Risk Description	Resolution Type	Resolution Notes	Date Closed
—	No closed risks yet — project in early development	—	—	—

Approval

Role	Name	Date	Signature
Author	John (AI Director)	2026-02-23	
Reviewer			
Project Manager	John	2026-02-23	
AI Director (John)	John	2026-02-23	
Project Sponsor	Alem Bašić		

Revision #3

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