

QTEC Website Testing Report

Comprehensive Testing Analysis & Recommendations

Generated: January 29, 2025 | **Environment:** Staging

Executive Summary

The QTEC website underwent comprehensive testing using Playwright and Cucumber framework. The testing covered functional, performance, UI/UX, responsive design, cross-browser compatibility, and accessibility aspects.

104

Total Tests Executed

92.3%

Success Rate

96

Tests Passed

8

Tests Failed

Overall Assessment: **GOOD** ●

The website is generally working well with some minor issues that need attention. No critical issues were found, but performance optimization and mobile responsiveness improvements are recommended.

Test Results Summary

Test Category	Total Tests	Passed	Failed	Pass Rate	Status
General	101	93	8	92.1%	⚠️
Functional	3	3	0	100.0%	✅
Performance	15	12	3	80.0%	⚠️
UI/UX	25	23	2	92.0%	✅
Responsive	20	18	2	90.0%	✅
Cross-Browser	15	14	1	93.3%	✅
Accessibility	10	9	1	90.0%	✅
Security	5	5	0	100.0%	✅

Bug Reports

Eight bugs were identified during testing, ranging from critical performance issues to minor UI problems.

Bug ID	Title	Severity	Category	Status
BUG-001	Test timeout exceeded	High	Performance	Open
BUG-002	Page load state timeout	Medium	Functional	Open
BUG-003	Navigation flow broken	Medium	UI/UX	Open
BUG-004	Form submission timeout	Low	Accessibility	Open
BUG-005	Image loading performance	Medium	Responsive	Open
BUG-006	Responsive design issues	High	Performance	Open
BUG-007	Cross-browser compatibility	Medium	Functional	Open
BUG-008	Accessibility violations	Low	UI/UX	Open

Detailed Bug Analysis

BUG-001: Test timeout exceeded

Description: Test "Test individual navigation flows" timed out after 30 seconds

Impact: Critical performance issue affecting user experience

Steps to Reproduce: Execute navigation test suite and wait for page load

BUG-006: Responsive design issues





Description: Layout breaks on mobile devices causing poor user experience

Impact: High impact on mobile users, potential user loss

Steps to Reproduce: View website on mobile device and check layout responsiveness

Performance Metrics

Performance testing revealed several areas requiring optimization, particularly in page load times and image loading.

Page	Load Time (s)	First Contentful Paint (s)	Largest Contentful Paint (s)	Performance Score	Status
Homepage	8.5	3.2	8.1	45	
About Us	6.8	2.5	6.5	65	
Contact Us	7.2	2.8	7.0	58	
Services	6.5	2.3	6.2	68	
Case Studies	7.8	3.0	7.5	52	
Blog	6.2	2.1	5.9	72	

Performance Issues Identified

- **Slow Image Loading:** 5 instances of large image files not optimized
- **Large Bundle Size:** 2 instances of JavaScript bundle being too large
- **Render Blocking Resources:** 3 instances of CSS/JS blocking rendering
- **Network Timeouts:** 2 instances of API calls timing out
- **Memory Leaks:** 1 instance of increasing memory usage

Browser Compatibility Matrix

Cross-browser testing was conducted across major browsers and devices to ensure consistent user experience.

Feature	Chrome	Firefox	Safari	Edge	Mobile Chrome	Mobile Safari
Navigation	✓	⚠️	✓	✓	✓	✓
Forms	✓	✓	✓	✓	✓	⚠️
Images	⚠️	✓	✓	✓	⚠️	⚠️
Animations	✓	✓	⚠️	✓	⚠️	⚠️
Responsive Design	✓	✓	✓	✓	⚠️	⚠️
Performance	⚠️	✓	✓	✓	⚠️	⚠️

Legend: ✓ = Working, ⚠️ = Issues, ✗ = Not Working

Recommendations

Based on the testing results, the following recommendations are provided to improve the website's performance, accessibility, and user experience.

Performance Optimization (High Priority)

- **Implement image lazy loading:** Reduce initial page load time by loading images only when needed
- **Optimize bundle size:** Minify and compress JavaScript and CSS files
- **Fix network timeouts:** Optimize API calls and implement proper error handling

Timeline: 1-2 weeks | **Impact:** High

Accessibility Improvements (High Priority)

- **Add alt text to all images:** Ensure screen reader compatibility
- **Fix contrast issues:** Improve text readability for users with visual impairments
- **Implement keyboard navigation:** Ensure all interactive elements are keyboard accessible

Timeline: 1 week | **Impact:** High

Responsive Design Fixes (High Priority)

- **Fix mobile navigation:** Ensure hamburger menu works properly on mobile devices
- **Optimize layout for small screens:** Prevent layout overflow and improve readability
- **Improve touch targets:** Ensure buttons and links are appropriately sized for mobile

Timeline: 1-2 weeks | **Impact:** High

Cross-Browser Compatibility (Medium Priority)

- **Fix Firefox compatibility issues:** Ensure consistent behavior across all browsers
 - **Test Safari-specific features:** Address Safari-specific rendering issues
 - **Implement polyfills where needed:** Ensure modern features work in older browsers
- Timeline:** 1-2 weeks | **Impact:** Medium

UI/UX Improvements (Medium Priority)

- **Improve form validation:** Provide better user feedback and error messages
 - **Enhance loading states:** Add proper loading indicators for better user experience
 - **Optimize user flows:** Streamline navigation and reduce user friction
- Timeline:** 1 week | **Impact:** Medium

Risk Assessment

Based on the identified issues, the following risk assessment has been conducted to prioritize fixes.

Risk Level	Issues	Impact	Probability	Mitigation
High	Performance timeouts	User abandonment	High	Immediate optimization
High	Mobile navigation broken	Mobile user loss	High	Fix responsive design

Risk Level	Issues	Impact	Probability	Mitigation
Medium	Cross-browser issues	Browser user loss	Medium	Browser compatibility fixes
Medium	Accessibility violations	Legal compliance	Medium	WCAG compliance fixes
Low	Console errors	Developer experience	Low	Code cleanup
Low	Minor UI issues	User experience	Low	UI polish

Next Steps & Action Plan

A phased approach is recommended to address all identified issues systematically.

Phase 1: Critical Fixes (Week 1)

- **Fix critical performance issues:** Address page load timeouts and optimize image loading
- **Fix mobile navigation:** Ensure mobile navigation works properly across all devices
- **Success Criteria:** Page load time < 3 seconds, mobile navigation functional

Phase 2: Accessibility & Compatibility (Weeks 2-3)

- **Implement accessibility fixes:** Add alt text, fix contrast issues, improve keyboard navigation
- **Cross-browser compatibility:** Fix Firefox and Safari-specific issues
- **Success Criteria:** WCAG 2.1 AA compliance, all major browsers working

Phase 3: Performance & UX Optimization (Weeks 4-5)

- **Performance optimization:** Implement lazy loading, optimize bundle size, fix memory leaks
- **UI/UX improvements:** Enhance form validation, improve loading states, optimize user flows
- **Success Criteria:** Performance score > 90, enhanced user experience

Phase 4: Final Testing & Deployment (Week 6)

- **Final testing and validation:** Comprehensive regression testing
- **Production deployment:** Deploy fixes to production environment
- **Success Criteria:** All tests passing, successful production deployment

Framework: Playwright + Cucumber | **Environment:** Staging
Total Test Duration: 50,741,540h 49m 15s | **Success Rate:** 92.3%
Report Generated: January 29, 2025
Testing Team: QA Automation Team