Testing by NNIT Test Excellence Center

# **Table of Contents**

ntroduction Testing using a risk-based approach	2 3
Testing using automation	4
Testing in regulated industries	4
Testing in the public sector	5
Testing infrastructure and operations	5
Testing in the enterprise sector	6
Testing in the financial sector	6

# Have a look and get inspired - we are right here to help you.

## **Contacts**

## **NNIT Test Excellence Center**

NNIT Compliance, Test & Validation Østmarken 3A DK-2860 Søborg e-mail: nnitTEC@nnit.com Tel: +45 7024 4242

## Thomas Nielsen

Line Manager NNIT Compliance, Test & Validation Østmarken 3A DK-2860 Søborg E-mail: TDR@nnit.com

Tel.: +45 3079 1199

## Introduction

This material provides a brief overview of the many benefits you as a customer will gain by choosing the NNIT Test Excellence Center (NNIT TEC) as your future testing partner.

The NNIT TEC offers professional and competitive test advisory, test management, and testing services tailored specifically to various business sectors. From a long and proven track-record in delivering test services in IT projects to the public, life science, financial, and the enterprise sector, we have gained solid experiences with many types of testing, such as:

- Risk-based testing
- · Automated testing
- Agile testing
- Testing in regulated industries
- Transition testing
- SAP testing
- · Infrastructure testing

Our Test Managers and testers are highly experienced in current test processes, techniques and best practices. Our responsibilities span from defining the test strategy, general test management – including planning, monitoring, control, and reporting, to test analysis, design of test cases, and practical test execution.

We also have a solid experience with various tools, e.g.:

- Microsoft Team Foundation Server (TFS) and Microsoft Test Manager (MTM)
- Hewlett Packard Enterprise Quality Center ALM
- · Hewlett Packard Enterprise Unified Functional Testing
- SAP Solution Manager

Our Test Managers and testers are certified as ISTQB and Agile Testers. And by utilizing NNIT in-house staff respectively in Denmark, the Philippines and China, we are able to offer both cost competitive and efficient project deliveries to our customers on a global scale.

NNIT is born with a strong quality mindset. Everything we do is embraced by our unique quality brand, embodied in our Quality Management System which is in full compliance with regulated guidelines and ISO international standards.

By choosing NNIT and the NNIT Test Excellence Center as your testing partner, your next project will be managed in the best professional way possible.



## Testing using a risk-based approach

For customers who need

 Experienced and certified Test Managers and testers who can bridge the gap between organizations, functions and cultures to achieve the common project goals; low risk and high quality, on time and budget.

#### NNIT TEC offers

 Risk-based testing approaches where we assist the customer in identifying, analyzing and managing/mitigating quality risks by applying current industry best practices for Risk Management (e.g. ISTQB and ICH Q9)

#### We can

- Plan, facilitate and/or conduct Risk Management activities and workshops
- Facilitate and/or perform risk assessments, based on requirements or functional specifications, to identify the potential risks that software products may introduce to users
- Define the distribution of the required testing effort and associated activities in relation to the risk profile and the derived test strategy

In NNIT TEC we are risk conscious by nature and that is the way we work. Our unique quality mind-set enables us to apply the required testing methods in IT projects to provide high efficiency and add high value – both to the testing process and to the final solution.

# Testing on agile projects

For customers who need

- To decide on which model they want to choose for their next large scale project
- · To see and try out new software after a very short while
- To make sure that all test activities will be planned into the release cycles

## NNIT TEC offers

- Experienced and certified agile testers and Test Managers who work as an integrated, yet impartial, member of the agile development team to ensure the highest quality of the product
- Agile testers and Test Managers who can interact and build trust between NNIT and the customer
- Agile testers and Test Managers who understand how to work on agile projects, and understand where an agile mind-set can make a difference in an IT project

### We can

- Make sure that test planning is also part of an agile project, and that an overall test strategy is defined
- Make a difference in an agile team by defining the appropriate set of rules, such as Definition of Ready and Definition of Done for user stories
- Ensure the quality of user stories so they live up to the guidelines for the INVEST model, i.e. they are understandable, testable with a complete set of acceptance criteria, a reasonable size, etc.
- Monitor test activities, even on large scale projects by adding the right amount of test and test management into the iterations with reference to the test strategy
- Practice continuous improvement by incorporating and adjusting best practice and lessons learned into the next iterations

NNIT TEC believes in the "agile testing mind-set" which is customer-focused, results-oriented, collaborative, and trust-building. We are dedicated and have a passion for delivering both business value, and meeting the customers' expectations every time.





# Testing using automation

For customers who need to

- Increase speed on repeatable test execution
- · Save time and effort spend on manual testing
- Keep the cost for testing at a minimum
- Control and improve the quality of large-scale IT applications and systems

#### NNIT TEC offers

- Automated testing for use in smoke testing, functional testing, regression testing, performance testing, load testing, and security testing
- · Cost-effective and proven approaches on "how to" automating test
- Competent testers with vast automation testing experience
- To plan, design, execute, and maintain automated test in all applicable areas
- Expert advisory, establish automation frameworks, and general automation assistance required to your project to be a success

NNIT TEC believes in the "Future of test automation", which provides you with a better confidence in software quality, helps you to reduce risks and is cost efficient. It gives you a better understanding of the system under test. It's easy to write and run – and requires minimal maintenance as the system evolves.

# Testing in regulated industries

For customers who need

- Test Managers and testers with vast experience in test and qualification in IT projects to regulated industries (e.g. life science, finance, food,
- aviation, hospitals)
- Advisory and guidance concerning planning and executing test and qualification in GxP projects (based on e.g. GAMP5 and ICH Q10)
- Compliance, test and validation advisory to meet and fulfill requirements from regulatory bodies worldwide (e.g. FDA, EMA, cFDA)

## NNIT TEC offers

- Test Managers and testers with vast experience in test preparation, execution and reporting in large and complex GxP projects
- Test advisory, services and competencies based on NNITs highly effective QMS (Quality Management System)
- Test Managers and testers who understands our customers business processes and requirements, and who can act on behalf of the customer and undertake the role as the customers Test Manager

#### We can

- Manage, plan and integrate all test and qualification activities across the product life cycle
- Provide industry leading best practice processes and methods which focus on patient safety, product quality and data integrity
- Undertake customer Test Management and tester responsibilities, enabling customers to focus on their own business processes
- Introduce effective governance to achieve and maintain GxP compliance

NNIT TEC delivers testing to regulated industries covering the full product life cycle (Advise-Build-Test-Operate and Decommissioning). Our focus is on supplying our customers with high quality systems, controlled test- and lifecycle management, all based on customer needs and in line with current regulatory requirements.





## Testing in the public sector

For customers who are

- In the process of acquiring software systems
- In the process of choosing the appropriate development model e.g. Agile or traditional V-model
- Searching for a reliable and professional testing partner to help plan their next large public IT project

#### NNIT TEC offers

- Test Managers who can interact with the customer, and plan and prioritize the testing activities
- Test Analysts who can make sure that all user stories are testable and have a complete set of acceptance criteria
- Testers who understand the principles of test

#### We can

- Plan the testing activities according to public tenders, e.g. KO2 and KO3, and the customer's responding bids
- Assist in providing an overview for the customer, and plan the test scope on large scale complex projects
- Take control over, and closely monitor the customer's testing activities
- Interact with and support customers and help make user stories testable with a complete set of acceptance end-users in how to plan test on a large scale

In NNIT TEC we understand public tenders and suppliers' bids, and we follow the supplier's test to the last detail to ensure quality of the testing and the correct handling of defects from registration to closure.

# **Testing infrastructure and operations**

For customers who need

- · Reliable IT transformations
- Seamless IT transitions that ensure system availability and stabile system operations
- · Reliable data migrations to ensure data integrity
- Ensure decommissioning of legacy IT systems

## NNIT TEC offers

- Test Managers with extensive experience in transitions and transformations
- Testers with experience in data migrations
- Test strategies and approaches that fit the operations landscape

#### We can

- · Assist in the setup of test strategies that mitigate transformation risks
- Assist in analyzing risks in transformations and transitions
- Assist in testing various approaches to transitions and migrations

In NNIT TEC we can assist you, if you are designing, developing or implementing a new IT system, changing your existing system, or transferring/transitioning your system. We can help you during migration of data, and ensure that the decommissioning of your legacy IT system is executed successfully and according to planned procedures.





## Testing in the enterprise sector

For customers who need

 Professional test advisory and test services to gain confidence and trust in quality

#### NNIT TEC offers

- Test Managers and testers who have extensive experience within the Enterprise sector
- Test Managers and testers who are able to put this knowledge of the sector into useful and effective test approach and high quality
- Test Managers and testers who understand the small to mid-size private business segment

#### We can

- · Work with agile and V-model disciplines and planning frameworks
- Automate test: GUI/Data driven or API
- Test responsive designs
- · Ensure testability of user stories
- · Prepare and perform effective tests
- · Deliver successful products on time
- Practice continuous improvement

NNIT TEC believes in "early design for testability", where proper advisory ensures an optimized, effective and cost-driven test approach, delivering your application as early as possible to reduce the time to market.

# Testing in the financial sector

For customers who need

- To deliver high quality testing to the highly competitive and highly regulated financial sector
- To work and deliver under intense attention from the authorities, governmental bodies, and the media
- To stay compliant with changing legislations and global market conditions

#### NNIT TEC offers

- Highly skilled Test Managers and testers experienced in testing to the financial industry
- Test Managers which can ensure that processes are followed within a required framework, so the required regulatory standards (e.g. Sarbanes-Oxley) to the financial sector are met

## We can

- Plan, control and monitor test projects of all sizes and complexity
- Assist in identifying testing approaches on technical challenging projects with high complexity
- Manage and lead test teams in a global sourced delivery setup
- Design and execute test to meet specific regulatory requirements
- Reporting progress using relevant metrics, to measure progress and trends

In NNIT TEC we know how to balance efficiency and regulatory compliance; we know what is of importance to meet the requirements to IT systems in the financial sector worldwide.





NNIT is an international IT consulting and service company specialized in the development, implementation, test and operation of IT for the life sciences industry and the public sector as well as any other industry relying on software products. We create value for our clients by treating their IT systems as if they were our own. We meet the industry's strictest requirements for quality. We apply the latest advances in technology to make our clients' software, business processes and communication even more effective.

Visit us on www.nnit.com



NNIT A/S Østmarken 3A DK-2860 Søborg Tel: +45 7024 4242

