### **1.** Participant information

#### Survey funded by the Foundation for Science, Research and Technology (FRST), contract #UOAX 0711.

The Department of Computer Science at The University of Auckland would like to invite you to take part in a research study to investigate how software practices are carried out in New Zealand and how these practices might result in benefits and issues during project implementation.

If you would like to participate, please visit the <u>project home page</u> to learn more about the study. Participating organisations will be assigned a unique code and you may then complete this online survey using the assigned code. The survey will take approximately 15 minutes. All information provided by you will remain anonymous and confidential and will not be reported back to your manager.

The aim of this research is one of discovery - we would like to learn from you. Your participation and feedback will be of great value in helping us identify more effective ways of developing computer software.

*1. Please enter the cod	e assigned to your	organisation	n for this	survey.	
2. What roles do you gene	rally have in your o	wn work? (s	elect all	that apply)	
Requirements Engineering		Programmer			
Design		Project Mana	gement		
Testing		Quality Assura	ance		
Architect					
Other (please specify)					
3. Please tell us what asp	ects of product def	inition. imple	ementati	on and suppo	rt vou are
involved in (select all that	-	·····		on and outpe	
Roadmapping	Building		Rele	easing	
Release Scoping	Testing		🗌 Sup	porting	
Design	Documenting				
	Maintaining				
Coding	in Maintaining				
_	i maintaining				
Coding					
Coding Other (please specify)					
Coding	you believe your k	-	-		your

My knowledge of the application area is	C	O	$\odot$	C
My experience with the tools I use is	C	Õ	O	O
My experience with the procedures I use is	0	$\odot$	$\odot$	C

link

#### **3. Organisational culture**

The next two questions relate to your organisation's culture. You will be asked how you learn about product requirements and about the formality of the procedures you follow.

#### 5. We would like to understand how you get to know about the product you are defining, implementing or supporting. For each statement below, choose 'Always' if the statement is true more than 90% of the time, 'Frequently' if it is true 50% - 90% of the time, 'Seldom' if it true less than 50% of the time and 'Never' if the statement is not true. 0 - 1 - 1 - - - -N .....

	Always	Frequentiy	Seldom	never
I consult comprehensive documentation.	O	C	O	O
I consult informal documentation.	0	C	$\circ$	O
I learn about the product at planned meetings.	$\odot$	C	$\odot$	O
I learn about the product by informal discussions with other members of my organisation.	O	Õ	O	O
I learn about the product by informal discussions with clients.	$\odot$	O	$\odot$	O
I innovate based on my knowledge of the application subject area.	0	O	$\circ$	O
I am given the information that I need.	$\odot$	$\odot$	$\odot$	igodot
I have to search for the information that I need.	O	Ô	$\odot$	O
I have to interpret the documentation I consult.	$\odot$	O	$\odot$	O
Other (please describe)				
		<b></b>		

6. We would like to understand how you do your job i.e. the kinds of procedures you apply. For each statement below, choose 'Always' if the statement is true more than 90% of the time, 'Frequently' if it is true 50% - 90% of the time, 'Seldom' if it true less than 50% of the time and 'Never' if the statement is not true.

	Always	Frequently	Seldom	Never
I follow documented procedures.	C	$\odot$	0	C
I follow informally-defined procedures.	O	0	$\odot$	O
I collaborate with others to get things done.	O	$\odot$	0	O
I follow procedure(s) defined by the tools we use.	O	0	$\odot$	O
I rely upon my personal experience.	O	$\odot$	0	O
I rely upon my knowledge of the application subject area.	O	O	O	O
Other (please describe)				
		<b>^</b>		
		~		

### 4. Practices in your organisation

The next three questions relate to details about how your organisation plans, implements, delivers and supports your software products. If you are not sure about any row in a question, please tick "Don't know".

\*7. We would like to understand the practices carried out by your organisation while PLANNING your software projects. For each statement below, choose 'Always' if the statement is true more than 90% of the time, 'Sometimes' if it is true 10% - 90% of the time and 'Never' if it is true less than 10% of the time. Please select 'Don't know' if you do not know.

	Always	Sometimes	Never	Don't know
Product planning is carried out by a team.	$\odot$	C	0	igodol
We produce formal planning documents.	0	$\odot$	$\odot$	C
We receive product requirements from outside the group.	O	C	O	O
We rely on the innovation of one or two people.	$\odot$	O	O	0
Requirements are clearly documented.	$\odot$	C	$\odot$	O
Details of requirements are mostly in peoples' heads.	0	O	$\odot$	0
We plan releases well in advance.	$\odot$	C	$\odot$	O
Everyone is kept informed about product strategy and direction.	0	O	$\odot$	0
We formally track requirements.	$\odot$	C	$\odot$	$\odot$
We use a tool to track features and enhancements.	O	Õ	$\odot$	O

# **SPPI Practices Participant Survey**

**\***8. We would like to understand the practices carried out by your organisation while IMPLEMENTING your software projects. For each statement below, choose 'Always' if the statement is true more than 90% of the time, 'Sometimes' if it is true 10% - 90% of the time and 'Never' if it is true less than 10% of the time. Please select 'Don't know' if you do not know.

	Always	Sometimes	Never	Don't know
We apply an iterative approach for new development.	0	C	0	$\odot$
We have dedicated people for architecture and/or high level design.	O	O	$\odot$	C
We implement requirements tracability.	O	O	O	O
Developers are responsible for high level design and implementation.	O	O	$\odot$	O
We follow a strict design review process.	$\odot$	C	$\odot$	$\odot$
We review designs informally within the team.	O	O	O	O
Design and coding are carried out together.	$\odot$	C	$\odot$	$\odot$
Features are formally documented and reviewed.	O	O	$\odot$	O
We often need to be creative because features and/or enhancements are incompletely documented.	C	O	O	O
Features and/or upgrades are incompletely documented but we have good access to clients, analysts and/or designers.	C	O	C	O
Features and/or upgrades are incompletely documented but we have a good understanding of the application area.	C	O	C	Ō
We produce unit tests for code.	$\odot$	O	$\odot$	$\circ$
Unit tests are formally reviewed.	O	C	$\odot$	$\overline{\mathbf{O}}$
We implement test-driven development.	$\odot$	O	$\odot$	$\circ$
We build the product at least once per day.	$\odot$	C	$\odot$	$\odot$
We build when a feature or features are completed.	$\odot$	O	$\odot$	$\circ$
Our build process is documented and followed.	$\odot$	C	$\odot$	$\odot$
We have a dedicated build person.	$\odot$	O	$\odot$	$\circ$
Unit tests are run after each build.	O	C	$\odot$	$\overline{\mathbf{O}}$
Code is reviewed before submitting to the build.	C	O	C	C
We have a separate team for testing the product.	O	C	$\odot$	$\overline{\mathbf{O}}$
Developers and testers work closely together.	$\odot$	O	$\odot$	$\circ$
The developer tests the product before release.	$\odot$	C	$\odot$	$\odot$
A tester is allocated to each developer.	$\odot$	O	$\odot$	$\circ$
A manager, client advocate or support person helps test the product.	O	C	O	$\overline{\mathbf{O}}$
All new features are independently tested by a test team.	C	O	O	C

# **SPPI Practices Participant Survey**

\*9. We would like to understand the practices carried out by your organisation while DELIVERING and SUPPORTING your software products. For each statement below, choose 'Always' if the statement is true more than 90% of the time, 'Sometimes' if it is true 10% - 90% of the time and 'Never' if it is true less than 10% of the time. Please select 'Don't know' if you do not know.

	Always	Sometimes	Never	Don't know
We have a formal release gate.	C	0	O	C
Representatives from marketing are involved in release decisions.	$\circ$	$\odot$	$\odot$	$\odot$
Representatives from development are involved in release decisions.	$\odot$	$\odot$	$\odot$	O
Representatives from QA or test are involved in release decisions.	O	0	O	O
Representatives from client support are involved in release decisions.	O	0	O	O
QA alone makes the decision about product release.	C	O	$\circ$	C
We involve clients in the release process.	O	0	O	O
We release only fully tested patches.	0	0	O	0
We release only fully tested new features.	$\odot$	$\odot$	$\odot$	$\odot$
We release only fully tested upgrades.	O	O	$\odot$	O
Patches are independently tested.	$\odot$	$\odot$	$\odot$	$\odot$
We release urgent patches without comprehensive testing.	O	O	$\odot$	O
All patches are released through QA.	$\odot$	0	$\odot$	$\overline{\mathbf{O}}$
A developer releases patches.	$\odot$	O	O	$\circ$
We collaborate closely with clients when we release software.	0	0	C	O
We have a separate test and release environment.	0	0	O	$\circ$
We have a dedicated support team.	$\odot$	0	$\odot$	$\odot$
We provide tiered support.	0	$\odot$	$\odot$	$\circ$
Our support team, developers and QA work closely together.	$\odot$	$\odot$	$\odot$	$\odot$
We use a tool for client issue tracking.	O	O	$\odot$	$\circ$
Our client issue tool is separate from our defect tracking tool.	$\odot$	0	$\odot$	igodot
Our support team receive formal product training.	C	O	O	C
A dedicated person is assigned to each major client.	$\odot$	0	$\odot$	igodot
Developers work with clients on-site.	C	O	O	C
The code can be changed by a developer on-site without going through our normal process.	igodoldoldoldoldoldoldoldoldoldoldoldoldol	0	C	C
We have problems with code being changed on-site.	O	O	C	O

#### **5. Your observations**

In the next two questions, we would like to know your opinions about which of the practices you carry out are beneficial and which are unhelpful.

10. In questions 7-9, you told us which practices are implemented in your organisation. We would like to understand which practices successfully support project outcomes. In the box below, please tell us which three practices or other activities carried out by your organisation are in your opinion the most beneficial, and why.

11. In questions 7-9, you told us which practices are implemented in your organisation. We would like to understand which practices are detrimental to project outcomes. In the box below, please tell us which three practices or other activities carried out by your organisation are in your opinion unhelpful, and why.