

Presentation to TUANZ, Oceania Room, Te Papa, Thursday, 8 May, 2008 – 1610 hrs.

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<p>Title Lessons from Finland</p>
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Our fundamental economic issue, as a nation, is of identifying and doing what we must do to keep up with the developed nations that are leaving us behind.

Its also of importance to you, as if we don't do better, we won't be worth much as your customers.

We have to start doing the things that we aren't doing and don't appear to know about.
It won't be more of the same, as this isn't enough.

What would make sense would be to open our horizons and look beyond our usual role models for successful countries of our scale and values.

Finland is the most obvious country to look to.

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<p>Map showing Finland</p>

To ensure we all buy our tickets for the same place, Finland is the country sandwiched between Sweden to the west and Russia to the east.

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Finland

- **Nokia**
- **ICT Leader**
 - telecommunications, electronics & information technology
 - digital cell phone manufacture
- **Most wired and most wireless nation, globally**
 - sophisticated digital and fibre optic voice & data networks

What you will know of Finland, is that it is

- the home of Nokia
- a world leader in ICT, both in the manufacture of mobile telephone technology, open source software and in its installed networks

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**Economic success
NZ would like to be**

From agriculture
to leading global economy
in just 50 years

Unquestionably, it is the economic success that we would like to be.

It is important to us because it has achieved its position as a leading global economy in just the last 50 years from being a poor agricultural country

with no advantages and many disadvantages.

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**Global Competitiveness Index
Ranking**

	05/06 ³	06/07	07/08
Finland	1	6	6
NZ	16	21	24

The Global Competitiveness Index

ranked Finland as the world's leading nation for the three years to 2006, that it then slipped is a reflection of how tough it is at the top, but they are still stellar.

In comparison, NZ is sliding off the bottom of the list.

- 6 **Achieved success with NZ's current R%D spend** F consolidated its conventional global platforms in forest and metals industry and established platform for ICT in the early 1980s with NZ's current R&D spend.
- 7 **Finland**
 Similar values, beliefs, qualities;
 & social and innovation frameworks
 to NZ
 We more like them
 than any other nationality
 F is an appropriate role model, because,
 as people, we are considered to be more like the Finns than any other nationality and have similar values and qualities and social and innovation systems,
 We should be able to do what they do and be as effective.
- 8 **Finland**
 Attractive model of leading economy
 within a welfare state
 NZ's opportunity to learn from success
 A further attraction of Finland, for us, is that they are the leading world economy that operates within a welfare state. Indeed they reinforced their welfare state to ensure the security of their economic success.
 This contrasts with the Silicon Valley and Singapore models that leave behind those it doesn't need.
 We should have much to learn from them.
- 9 **Run DVD** *At this point, we will run a short video, to give you a Finnish perspective on their innovative capability.*

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Finland

- World leader in technology innovation
- Harsh climate
- Sparse resources
- 5.2 million population
- Geo-political isolation

Will now broadly touch on the personal elements that underly the Finns journey to their present remarkable achievements in technology innovation.

Beyond this success, Finland may be summarised as having

- One of the world's harshest climates
- No resources of any significance – rock and snow.
- Their population of 5.2 m is only slightly more than ours.
- They are both geographically and politically isolated. Having Russia as a neighbour has never been a natural advantage.

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History

- 11–18 Ruled by Sweden
- 19 Ruled by Russia
- 1917 Gained independence

Historically,
over the last 800 years,

- they were first ruled for the first 700 of these by the Swedes
- they were then ruled thru the 19th C by the Russians.
-
- It was only in 1917 that the Russian Revolution gave the Finns the chance to seize their own independence. Even so their freedom was tenuous with the Russians and Germans trying to annex their lands during the WW2.

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Economic platform

ICT
Paper technology
Metal products
Electric motors, lifts & cranes
Environmental technology,
Industrial automation,
Medical electronics,
Energy production,
Shipbuilding.
Advanced machine technologies.
Functional foods,
Biomedical products
Textile and design

Given their size, their competitors and their lack of resources, their economic success is staggering relative to our achievements.

- Their ICT sector you know about, with its cluster of 3000 companies
- They also lead the world in papermaking, both as one of the world's two manufacturers of papermaking machinery - m/cs such as this one (top left) can be 200 m in length, produce 2 km of paper a minute and are considerably more complex than a jumbo jet + with three of the global paper manufacturers – all of which is very serious technology.
- Beyond this, their electrical and mechanical engineering industry enables their dominance in the sale of large diesel engines & electric motors, lifts & cranes + industrial automation.
- Their marine industry manufacturers icebreakers, luxury liners and offshore oil platforms.
All of which requires rather more information processing and communication than social text messaging
- Then they have their biomedical equipment and biotechnology, amongst others.

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**Bonded in pride
of their collective achievement**

*How they do, what they do
not readily shared.*

The Finns are tightly bonded in their pride of national achievement.

However, It is not in their interest to explain the processes of their success and they won't readily share insight to *How they do what they do.*

You will learn little from them on a whistle-stop visit , but their trust can be won over time

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Survival struggles define Finland

- political independence
- climate
- famine
- 1939 Winter War
- WW2 reparation payments
- 1990's recession
- The Information Society

Survival legitimises the State

Understanding the Finns requires the understanding of their history of survival – both biological-economic and political-cultural.

Cold winters have killed more Finns than war. A third of the population starved in the late 17th century and a tenth died in the 1860s.

Economically, Finland has been a poor country for most of its existence. Each step of its economic progress has been one of survival, its:

- WW2 reparation payments that it paid in full to Russia,
 - transition from an agrarian to an industrial society in the 1950s
 - deep recession in the early 1990s, that led to their Information Society
- have all been experienced collectively, as a battle of survival.

Each new Government must be able to guarantee that it will ensure the survival of the country.

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Age-old rural values

- common-sense
- straightforwardness
- steadiness
- reliability
- simplicity
- tenacity,
- hatred of bombast and debt

Success did not happen with Information Society, but built on key cultural qualities

As people, Finns utilises state-of-the-art technology within a framework of age-old rural values of commonsense, straightforwardness, steadiness, reliability, simplicity, tenacity (*sisu*) and hatred of bombast and debt.

With the exception of an aversion to debt, these are our values. For the Finns, debt transfers control to others and means paying more.

Most importantly, they didn't change who they were to succeed as an information society. Their key qualities were already established 50 years ago and built on lessons learned in the previous 200 years.

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Always a minority

Developed challenger attitude
Winning has exceptional importance

Their 800 yrs of being controlled by others has caused the Finns think of themselves as a “minority identity” and to develop a “challenger attitude”.

Their ICT leadership has been of immense importance to them.

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Doers, not talkers
Small talk interferes with creativity

Positive attitude to technology
in harmony with nature, art, design
and literature

The Finn is a perfectionist
a formidable person

Their cold climate has made them a nation of mainly silent people who go in for deep thinking. Small talk interferes with creative thought.

Don't open your mouth at -20o until you've got something worth saying.
Finns take talking seriously, dislike hype and like the technical story do the talking.

They've also learnt to quickly adopt new technology to help them with their survival battles and have done this within a holistic respect for the environment and the arts.

Notwithstanding their deceptive reticence, the Finn is a formidable person, a perfectionist.

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Experience of “we”

For 800 years,
relatively homogeneous,
networked to survive

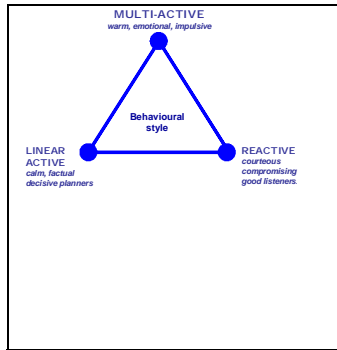
No one left behind in survival battles

Respect the law, but act individually

Being controlled by others for 800 years caused the Finns to evolve as a relatively homogenous group and that had to network closely with each other to manage.

This gives them a sense of equality, of “we”, that embodies the concept of leaving no one behind, an important aspect of their survival battles

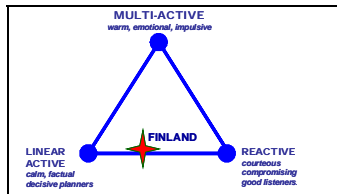
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The globally unique character of the Finns can be appreciated from this model which classifies cultures by the degree to which they are

serious - decisive
emotional - impulsive
sensitive to other people

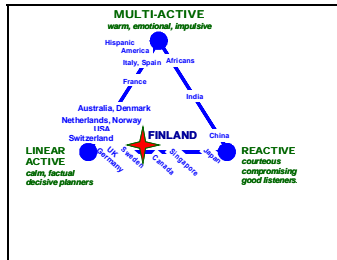
20



This model positions the Finns on the bottom axis, as people who are prepared to listen and learn from others

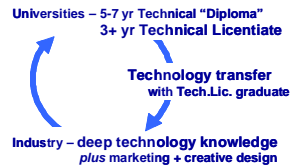
then plan to get what is required done.

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This makes the Finns similar to the Canadians, who we know and different to the Americans and the Australians.

NZ wasn't given a place on this diagram, but I would expect it to lie above the Australians
listening or planning aren't our best points.



This page summarises the basic platform of the Finn's commercial model, that sits under their Informational Society and Network Enterprises.

When the Finns were asking themselves 50 years ago how they might assure their survival, they looked more to the technology model of Germany than the open, imperial Anglo-US model that we have made ourselves part of.

Two parts, + interface

In particular,

1. they principally invest in technology, the process of commercialising science. Their boards and senior management have deep technology literacy. Within this technology culture, they have the knowledge to innovate continuously, making decisions quickly and effectively.

Industry drives their innovation processes and knows what it wants and manages how the research sector provides this.

Initially, much of their commercial progress was developed from the science findings of other nations. Nokia didn't develop the mobile phone but made it a lifestyle device.

2. Within the tertiary education systems, 30 % of the graduates are in technology, maths and the sciences (twice other US & European levels) and are extensively trained.

Their first technology degree requires at least 5 years of study and only prepares the graduate for low to mid-management.

Their key degree, that is required to proceed to the higher levels of management is the Technical Licentiate that is similar to our PhD.

This requires at least a further 3 years, and in practice 5 or more years and is often gained while working. At the heart of this advanced degree is a significant research project that is usually linked to commercial opportunity.

3. The interface between industry and the technology universities is tightly managed. University enrollments and research programmes are linked to private sector need.

Industry staff participate fully in university research planning, management and implementation.

The Technical Licentiate thesis is the main conduit for research transfer to industry. Commonly the student will participate in commercialising the findings.

This tight culture ensures that Nokia will always be a Finnish company, even though only 10 % of its ownership lies within Finland and 2% of its sales are to Finland.

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Continuous learning
"what can you tell me"?
"correct me if I'm wrong"

Instinct for opportunity
Won't always know how,
but confident that critical steps
will be resolved when necessary

A key feature is their practice of continuous learning At all levels, from the boardroom down, they routinely, they seek new knowledge from both colleagues and visitors.

This constantly challenges and changes their understanding and requires humility.

They know that to know something a month or six months ahead of a competitor can be the difference between new success, or failure.

Finns don't take "risks" and do not practice "learning by failure".

They give serious thought to what they plan to do, have good instinct for what is possible and have confidence that future technical problems can be resolved when faced.

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Caveat

Not perfect,
but
persistence and education allows
them to overcome problems better
than most

Even if Finns are perfectionists, they aren't perfect.

The leading edge is a knife edge and they can have things go as disastrously wrong as others do. However, they seem to be able to pick themselves up faster than others and move on

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sparkle
vitality
enthusiasm.

The slide features a white rectangular box with a black border. At the top left, the text 'New Zealand' is written in green and 'Aotearoa' in blue. In the center, the words 'sparkle', 'vitality', and 'enthusiasm.' are stacked vertically in blue, green, and orange respectively.

With this background of Finland, we can look at what we do from their perspective.

Our conundrum is that much of our social and innovation frameworks and strategy is similar in structure and aspiration to those of Finland, but they have achieved so much more.

If we think that we lack scale and are remote from world markets, well it hasn't been any easier for the Finns, relatively.

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natural values
and new
dimensions

The slide features a white rectangular box with a black border. Inside, the words 'natural values' are in green, 'and new' is in orange, and 'dimensions' is in orange.

We know that we ought to be successful. We've built our myths for this.

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no limits
no boundaries

The slide features a white rectangular box with a black border. At the top left, the text 'New Zealand' is written in green and 'Aotearoa' in blue. In the bottom left, the words 'no limits' and 'no boundaries' are stacked vertically in blue and orange respectively.

Of course, we do have significant success, but these remain the exception.

To effectively understand how we differ from the Finns, we need to consider what we do and don't do from their perspective.

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Weak technology governance

"Leave it to the experts"

Our boards and senior management don't generally have deep technology knowledge or interest.

This makes it unlikely that they will lead innovation-based strategies.

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Financial engineering,
commerce

not innovation

"Drive down the cost curve"

The financial and commercial cultures that we largely have require such high levels of certainty to run with innovative opportunity that these opportunities rarely survive,

Such companies invariably chase each other down their cost curves, but don't have the technological instinct to reposition their profit curves.

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Don't know what we don't know

"Fast followers"

As our businesses don't have detailed understanding of the technologies they operate, they aren't alert to signals about the future and aren't able to see the big changes opening up before others do.

By being fast followers, they allow others to take the early initiative that provides average profits.

- 30 **Strong science inquiry**
*Understanding,
not commercial opportunity*
- Without technology cultures and detailed technology strategies, our business aren't driving our research sector to provide the incremental innovation business needs to advance commercially.
- In the absence of this direction, our research community largely has its own agenda.
- 31 **Participation encouraged,
not achievement**
*"Give it a go"
"Take a risk"
"Learn by failure"*
- We do widely encourage participation, but it's not enough to just be in the game. Achievement and customer satisfaction are key Nokia values.
- "learning by failure" is an expensive way of learning.
- 32 **Too busy to think**
"Not our responsibility"
- Finally, we don't think or talk about key issues and challenge ourselves in the manner of the Finns.
- Mostly, we keep within our individual networks that provide security and reassurance and leave it to others who we consider to have greater responsibility to solve the big issues.

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Advance occurs
at the intersection of ideas

Clearly, we are mostly operating in direct contrast to the Finns.
But if we could improve our understanding of their successful processes, it could well be the icebreaker that we need.

We are capable and we do wish to do better.

Invariably, new opportunity results from the intersection of different ideas or cultures.

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Action - Learn from Finland
second technology-literate staff to live and work th

To benefit from any transformational lessons from Finland, we must begin to observe them in practice, by living and working amongst them, to the degree that we can negotiate.

We must involve people who will be sensitive to their unique behaviours and processes.

The most suitable people to involve are those within the private sector who understand both technology and the profit motive and who can talk to the Finns on their level.

This is an initiative you could lead as a sector – both for your own benefit and to lift your customers up.

As soon as we have a critical mass of people returning to our shores with insight to the critical Finnish practices, we can expect them to collectively help stimulate a more innovative and profitable commercial culture.

Learning by living in Finland is not a quick fix. It requires serious commitment and will take time.

While waiting for momentum to build, you might run a parallel programme within your individual organisations to develop an organisation-wide appreciation of what success looks like, by comparing what you are doing to the leading edge as you understand it.

This can be effectively done by running a TECHNOLOGY AUDIT in which you globally-benchmarked each stage of your business the level of the proprietary innovation content that you have contributed, as opposed to purchased technology. The profile you establish will give you a realistic assessment of your innovation capability, as well as starting your organisation on an invaluable self-learning process.

The process is an iterative one that helps you progressively learn about what the leading edge activity is. As you learn more, you adjust your audit profile.

Then implement a TECHNOLOGY PLAN to progressively & profitably increase your innovation profile.

**Success is about winning
It is not easy**

36 **Finland =
NZ qualities & values
+ critical differences**

In summary

37 **Finland**
Determined to succeed, survive
Deep reflective thinkers
Continuous learning

Deep technology focus
Extensive tertiary education
University-industry interface

Achieved success with NZ's
present R&D investment

38 **Our opportunity**

- Learn from Finland
- Technology Audit
- Technology Plan

Additional comment, if time

You would think we would be eager to learn more of this miracle, but none of the bookshops along Lambton Quay or Queen Street can currently offer a single book on the Finland or the Finnish business model, other than the Lonely Planet guide.