

Case Studies on Industrial Innovation in the Pacific Islands

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AGENDA

- I. Background and Selection Criteria**
- II. Case Studies on Industrial Innovation**

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I. Background and Selection Criteria

A: Case Study Booklet

- Part of the Work Package 4: Enhancing the cooperation on innovation issues to tackle the societal challenges.
- Developed using a combination of primary data collected through interviews and secondary information gathered through extensive literature review.
- **Purpose to identify the specific scientific and technological domains and competencies developed by the Pacific region**

I. Background and Selection Criteria

B: Selected Organisations*

- To identify organisations to be studied, following selection criteria formulated:
 - has the company filed any patent;
 - is the company launching new product/service within the next 6-12 month;
 - does the company have its own R&D team;
 - has the company experienced continuous growth over the past 3 years;
 - has the company's innovation been successful.



Source: qsr magazine.com

*We would like to sincerely thank all the companies and their representatives for their effort and time in interacting with us and giving us valuable insights about their organization. We would also like to thank IRD (Institut de recherche pour le développement) and representatives from IRD, in particular, Professor Jean-François Marini (PACE-Net Plus Project Coordinator) as well as Ms. Fadhila Le Meur (PACE-Net Plus Project Manager) for helping us in identifying and selecting companies to be case studied from New Caledonia. Last but not the least, we would like to express our gratitude to the University of the South Pacific (USP) and representatives from USP, especially Dr. Bibhya Sharma, Dr. Jito Vanualailai and Mr. Sheikh Azid for helping us liaise with the company selected for the case study from Fiji.

I. Background and Selection Criteria

B: Selected Organisations

- To reflect the diversity and innovation capacity, the following organisations have been carefully chosen to mirror their unique attributes:

1. **Bluecham SAS** (New Caledonia), a cloud computing company;



2. **Nature's Way Cooperative** (Fiji Islands), Fiji-based agribusiness;



3. **Serei No Nengone** (New Caledonia), an essence manufacturer;



4. **Vale** (New Caledonia), a mining multinational from Brazil with a large operational based in New Caledonia.



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- I. Background and Selection Criteria
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II. Case Studies on Industrial Innovation

Case Study A: Bluecham, New Caledonia



Source: Bluecham

II. Case Studies on Industrial Innovation

Case Study A: Bluecham, New Caledonia

About Bluecham



Business: Software technologies

Number of employees: 7

Turnover: Undisclosed

Target market in Pacific Islands: Global.

- A cloud computing company from New Caledonia - products are satellite imaging for its clients from a broad range of industries.
- Innovation lies in converting scientific knowledge into business tools used to improve sustainable development.

II. Case Studies on Industrial Innovation

Case study A: Bluecham, New Caledonia

Focus on Industrial Innovation

- Since Pacific region is one of the main regions where global warming is affecting its fauna and flora, governments and other organisations require new tools to keep them informed with accuracy to analyse, anticipate and act.
- As a result, Bluecham's industrial innovation brought in the market:



Qöhnelö™ - A web-based decision-aid hub for urban planning and environmental management



SEPSAT™ - A range high value added products with functions for Precision Environmental Tracking by Satellites

II. Case Studies on Industrial Innovation

Case Study A: Bluecham, New Caledonia

Impact

- General: Technology enables its clients to have an economic, social, societal or environmental impact within their businesses
- Economic & Societal: Solutions allow a broader range of organisations across multiple industries on a global scale to access similar information simply through internet connection.
- Environment: Solutions enable all stakeholders to access to the latest information, making discussions on the actions to take concrete and “facts” easily presented



Source: freeimages.com

II. Case Studies on Industrial Innovation

Case Study A: Bluecham, New Caledonia

Success factors

- Satellite as a niche: Main asset is the technology enabling satellite communication at a low cost, while rendering the most accurate set of data (currently) available.
- Location & Economy: Technology is rightfully needed in New Caledonia.
- The “Cloud” Advantage: Wireless networks represents the most suitable way to keep a line of communication
 - The company is able to monetize each service but also to keep the cost low by having one centralised software that multiple clients can access.

II. Case Studies on Industrial Innovation

Case Study B: Nature's Way Cooperative, Fiji



Source: NWC

II. Case Studies on Industrial Innovation

Case Study B: Nature's Way Cooperative, Fiji

About Nature's Way Cooperative



Sector: Quarantine treatment

Number of employees: Over 30

Turnover: Around 296,000 Euros for 2015

Target market: Pacific Islands

- Is a thriving Fiji-based agribusiness which provides packaging, marketing and technical services to farmers.
- Main focus is to provide quarantine treatments for Fijian fruit and vegetables under the Bilateral Quarantine Agreement (BQA)

II. Case Studies on Industrial Innovation

Case Study B: Nature's Way Cooperative, Fiji

Focus on Industrial Innovation

- Started innovating in order to have an effective and efficient work design/process flow, to reduce operational costs and to reduce wastage.
- Innovation led to better work quality and labour management
- Currently, there are three major challenges in implementing innovation:
 - The adoption of innovation measures was tough to be implemented
 - Lack of buy-in from the staff, given that it was all new concepts to them
 - Access to funding has also been a challenge for the organisation



Source: freeimages.com

II. Case Studies on Industrial Innovation

Case Study B: Nature's Way Cooperative, Fiji

Impact

- Societal & Environmental: Treatments do not use any form of chemicals and are Hazard Analysis and Critical Control Points (HACCP)* compliant.
- Economic: Establishment of NWC as a legal entity has strongly contributed to the creation of meaningful impact



Source: www.qmsconsulting.co.in/

*HACCP is a management system in which food safety is addressed through the analysis and control of biological, chemical, and physical hazards from raw material production, procurement and handling, to manufacturing, distribution and consumption of the finished product. (<http://www.fda.gov/Food/GuidanceRegulation/HACCP/>)

II. Case Studies on Industrial Innovation

Case Study B: Nature's Way Cooperative, Fiji

Success factors

- Good management: Despite NWC being a cooperative and highly accountable to its shareholders, its management has maintained a rigorous control over the key decisions, not allowing too much influence from shareholders and other external components.
- Supportive Environment: The Fiji government has played a relatively hands-off role by being the provider of initial capital and conducting the required core quarantine functions.
 - Following the initial assistance, little interference from the government has proven to be beneficial when combined with the good management.

II. Case Studies on Industrial Innovation

Case Study C: Serei No Nengone, New Caledonia



Source: SNN

II. Case Studies on Industrial Innovation

Case Study C: Serei No Nengone, New Caledonia

About Serei No Nengone



Business: Production of essence made from natural products such as sandalwoods.

Number of employees: 26

Turnover: NA

Target market in Pacific Islands: SNN sells directly to industries outside of the Pacific Islands

- Is a company based in New Caledonia that has developed its own process to extract aromatic fragrance without losing on the quality of the raw material.
- Some of the world's leading perfume brands (e.g. Chanel) and cosmetics (e.g. Weleda) source their aroma from SNN.

II. Case Studies on Industrial Innovation

Case Study C: Serei No Nengone, New Caledonia

Focus on Industrial Innovation

- From the technical reasoning for innovation, SNN has chosen to extract sandalwoods (through a cold process) over the usual process (hydro distillation)
- Environmental and societal innovation has allowed an inclusive participation from the local population in the operation of the sandalwoods plantation as well as the protection of the natural resources.



Source: SNN

II. Case Studies on Industrial Innovation

Case Study C: Serei No Nengone, New Caledonia

Impact

- Environmental: Uses an innovative industrial process consuming less amount of water, a reduced consumption of electrical energy and near to zero waste emission.
- Societal: The authorities take a great interest in what SNN is doing, and play a proactive role in the economic management of the particular sector.



Source: freeimages.com

II. Case Studies on Industrial Innovation

Case Study C: Serei No Nengone, New Caledonia

Success factors

- Multi-Stakeholder Cooperation: Collaborated with both public and private sectors, as well as worked closely with the indigenous communities, who believe firmly in the harmonious symbioses' between man and their local environment.
- Multiple Impact: Positioned as a reliable and well-managed business that could attract the interest of environmentally sustainable clients and influence investors to further expand its impact while growing the business.

II. Case Studies on Industrial Innovation

Case Study: Vale, New Caledonia



Source: Vale

II. Case Studies on Industrial Innovation

Case Study D: Vale, New Caledonia

About Vale



Business: Mining Industry

Number of employees: 85,305 – about 3000 in New Caledonia

Turnover: around EUR 270 million (2014)

Target market in Pacific Islands: Nickel: China, Japan, Ore: Australia, China; Cobalt: Japan, China

- Vale is a Brazilian multinational diversified metals and mining corporation and one of the largest logistics operators in Brazil.
- Has a strong presence in New Caledonia, whereby one of the largest nickel deposits can be found.

II. Case Studies on Industrial Innovation

Case Study D: Vale, New Caledonia

Focus on Industrial Innovation

- Safety, environment and costs are the three main reasons for innovation.
- Developed an innovative process to treat nickel from laterites to avoid using very dangerous Hydrogen sulfide (H₂S) gas.
 - Main challenge is to go industrial scale with this innovation.
- Understood the need for a better and less costly shipment facility to transport ores from Brazil to China – hence, developing the Valemax ships



Source: Vale

II. Case Studies on Industrial Innovation

Case Study D: Vale, New Caledonia

Impact

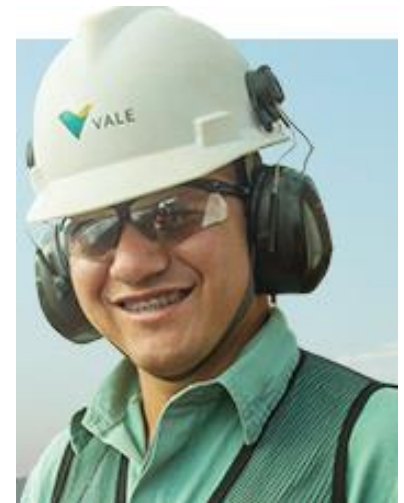
- Environmental: Invested in a nursery with capacity of more than 500 000 plants annually; as well as invested in projects aiming for renewable and sustainable energy generation
- Society: Recently appointed a director of operations to help to stabilise the changes in processes which affect employment. Staff is well compensated with bonus.

II. Case Studies on Industrial Innovation

Case Study D: Vale, New Caledonia

Success Factors

- Social: Opened up a plant nursery to schools as part of its educational trips and engages with the local indigenous people for its cultural development
- Economic: Is the 2nd largest employer in southern province of New Caledonia (created over 3,000 jobs)
- Environmental: Together with communities south of the Grande Terre, signed “The Pact for Sustainable Development of the Deep South” for a period of 30 years.



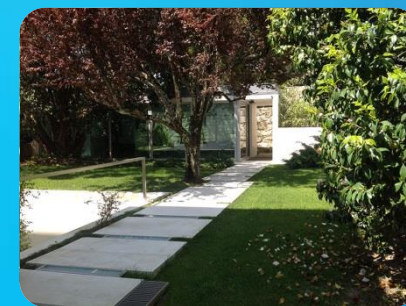
Source: Vale

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