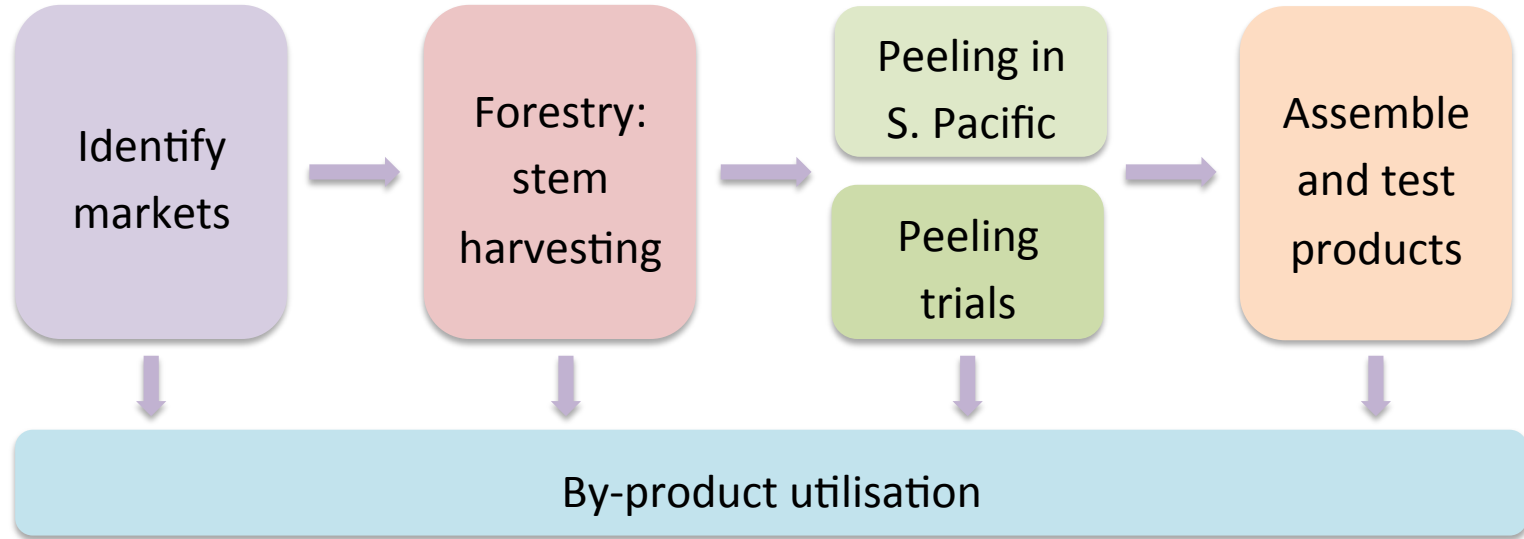


# Objective 3

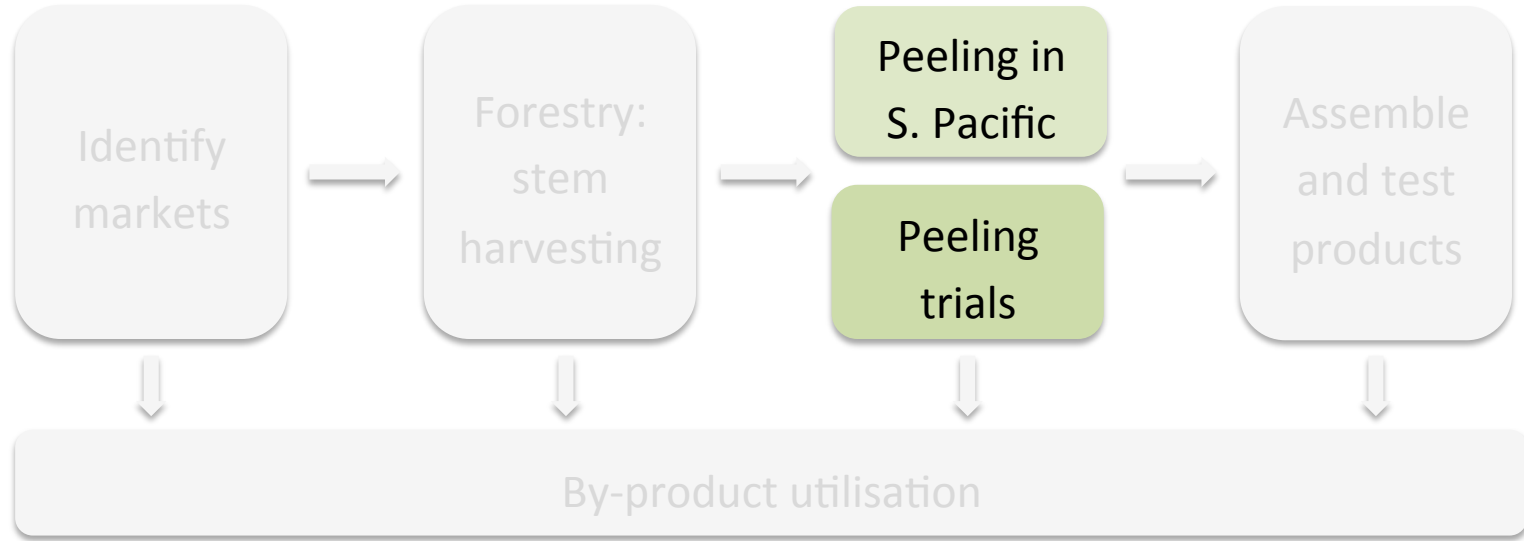


Establish experimental  
veneer-peeling capacity in  
the South Pacific

# Project objectives



# Objective 3 – South Pacific veneer peeling capacity



# Objective 3 – South Pacific veneer peeling capacity

Peeling in  
S. Pacific

Peeling  
trials

# Objective 3 – South Pacific veneer peeling capacity

Peeling in  
S. Pacific

Peeling  
trials

## **Objective 3** – Establish experimental veneer-peeling capacity in the South Pacific

3.1 – Commissioning a spindleless lathe equipment

3.2 – Assessing the potential of a regional trial and  
demonstration program

# Objective 3 – South Pacific veneer peeling capacity

Peeling in  
S. Pacific

Peeling  
trials

## *3.1 – Commissioning a spindleless lathe equipment*

- Lathe equipment in place and under commission at TUD Fiji this week
- Trial work commenced this week
- Visit TUD for a demonstration tomorrow

# 3.1 Commissioning Spindleless Lathe

- Equipment in place and operational!



# 3.1 Commissioning Spindleless Lathe

- Steam pre-conditioner
  - Steam bath made in Australia.
  - Existing kiln box modified at TUD
  - Installed together at TUD and commissioned.
  - Operation is to be tuned during trials.





# 3.1 Commissioning Spindleless Lathe



# 3.1 Commissioning Spindleless Lathe



## 3.1 Commissioning Spindleless Lathe

- Bath inserted into modified kiln
- Kiln sits on raised concrete plinth
- Logs can be inserted and removed using a forklift



# 3.1 Commissioning Spindleless Lathe

- Stem in-feed
  - Ready to be installed once location has been tested and confirmed
  - Foundations in place



# 3.1 Commissioning Spindleless Lathe

- Lathe
  - Modifications completed in QLD
  - Improved safety
  - Improved control during peeling
  - Lathe in place at TUD



# 3.1 Commissioning Spindleless Lathe



# 3.1 Commissioning Spindleless Lathe



# 3.1 Commissioning Spindleless Lathe

- Conveyor
  - In place at TUD
  - Feed speed and detailed setup to be confirmed during trials





# 3.1 Commissioning Spindleless Lathe

- Clipper
  - In place at TUD
  - Feed speed and detailed setup to be confirmed during trials



# 3.1 Commissioning Spindleless Lathe

- Final equipment commissioning this week
- Trials commence this week
- Training commences this week
- Trials and training continue Oct/Nov 2014



# Objective 3 – Experimental regional peeling

Peeling in  
S. Pacific

Peeling  
trials

## *3.2 – Assessing the potential of a regional trial and demonstration program*

- Feasibility of transporting the lathe suite between regional centres will be assessed
  - Technical
  - Economic
  - Physical

# Modeled trial locations

Three regional trial locations were investigated:

- TeiTei Taveuni Farmer Association selected location at Taveuni, Fiji.
- Strickland Brothers Ltd facility at Apia, Samoa.
- Timol Timber facility at Honiara, the Solomon Islands.



# Modeled equipment suites

- Option 1: The existing lathe suite is adapted for travel and relocated.
- Option 2: One additional lathe suite is acquired, adapted for travel to each trial locations and relocated.
- Option 3: Three additional lathe suites are acquired, one for each trial location, adapted and relocated.



# Modeled operational stages

- **Stage 1: Initial training.**
  - An experienced operational staff member from each trial location is trained as a lathe team captain at TUD Nasinu.
- **Stage 2: Infrastructure upgrades.**
  - Local infrastructure is upgraded to operate the lathe equipment suite.
- **Stage 3: Equipment preparation.**
  - The equipment suite or suites are collected, packed and dispatched to the regional trial location.
- **Stage 4: Regional equipment installation.**
  - The equipment suite is unpacked, installed and commissioned.
- **Stage 5: Regional training.**
  - The local lathe team captain and a project officer train a lathe production team at the regional trial location.



# Modeled operational stages

- Stage 6: Regional research.
  - Peeling experiments are conducted with local coconut resources.
- Stage 7: Regional demonstration.
  - Regional demonstration program is held for community, government and business groups.
- Stage 8: Repack and despatch.
  - Lathe decommissioning, repacking and relocation to the next centre.
- Stage 9: TUD Reinstall.
  - At the completion of the program, the equipment suite is left at the chosen location or returned to TUD for recommissioning.



# Modeled demonstration program

Critical path activity	Option 1	Option 2	Option 3
Order manufacture and deliver equipment	-	3 months	4 months
Modify equipment		2 months	3 months
Pack and prepare equipment	2 months	2 months	1 month
Dispatch and operate in Taveuni.	3 months	3 months	3 months
Dispatch and operate in Samoa	3 months	3 months	3 months
Dispatch and operate in the Solomons	3 months	3 months	3 months
Return to TUD and reinstall	2 months		
Total	12-13 months	16 months	17-18 months



# Activity risk profiles

Activity	Taveuni	Samoa	Solomons
• Stage 1: Initial training.		• Low	
• Stage 2: Infrastructure upgrades.	• High	• Medium	• Medium
• Stage 3: Equipment preparation.		• Low - medium	
• Stage 3: Equipment preparation - Dispatch	• Medium	• Low	• Low
• Stage 4: Regional equipment installation.	• High	• Low	• Low
• Stage 5: Regional training.		• Low	
• Stage 6: Regional research.		• Medium	
• Stage 7: Regional demonstration.		• Low	
• Stage 8: Repack and despatch.	• Medium	• Low	• Low
• Stage 9: TUD Reinstall.		• Low	

The major significant risks are the level and cost of modification needed to any additional lathes and finding a suitable site and power supply for a Taveuni trial.

# Estimated total cost

Cost summary (\$)	Option 1	Option 2	Option 3
• Personnel	• \$56,077	• \$58,833	• \$61,681
• Supplies and services	• \$32,429	• \$27,529	• \$21,899
• Travel	• \$29,701	• \$29,701	• \$29,701
• Capital items	• \$31,057	• \$129,557	• \$327,807
• Contingency (15%)	• \$22,390	• \$36,843	• \$66,163
• Total	• \$171,653	• \$282,463	• \$507,251

Option 1 leaves one peeling research facility in the Pacific.

Options 2 & 3 establish satellite joint production/research facilities.

A single organisation may fund Options 1 & 2.

Organisations in association may fund Options 2 & 3.

# Objective 3 – South Pacific veneer peeling capacity

Peeling in  
S. Pacific

Peeling  
trials

## ***Key completion dates –***

<b>Activity</b>	<b>Planned</b>	<b>Actual</b>
Lathe suite relocated to Fiji	March 2014	July 2014
Lathe suite commissioned in Fiji	March 2014	August 2014
Assessment of potential regional peeling program	June 2014	August 2014

# Questions



Australian Government  
Australian Centre for  
International Agricultural Research



Queensland  
Government



SPC  
Secretariat  
of the Pacific  
Community

