

MEMORANDUM FOR Banknote Upgrade Steering Committee

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DATE 3 Sept 2013

SUBJECT **Request for tender – Evaluation process**
Version 2

FOR YOUR Approval

This paper is resubmitted to the Steering Committee with finalised criteria weights.

This paper outlines the evaluation processes regarding the design (RFT 1) and print tenders (RFT 2).

1 Tender requirements

The following items should be supplied in the tender submission to the Bank's satisfaction:

Requirement	Company 1	Company 2, etc.
Company representative listed	y/n	y/n
Declaration of acceptance of terms	y/n	y/n
Conflict of interest declaration	y/n	y/n
Format of submissions in accordance with requirements	y/n	y/n

2 General company requirements

The following accreditations / standards and other corporate requirements need to meet the Bank's satisfaction:

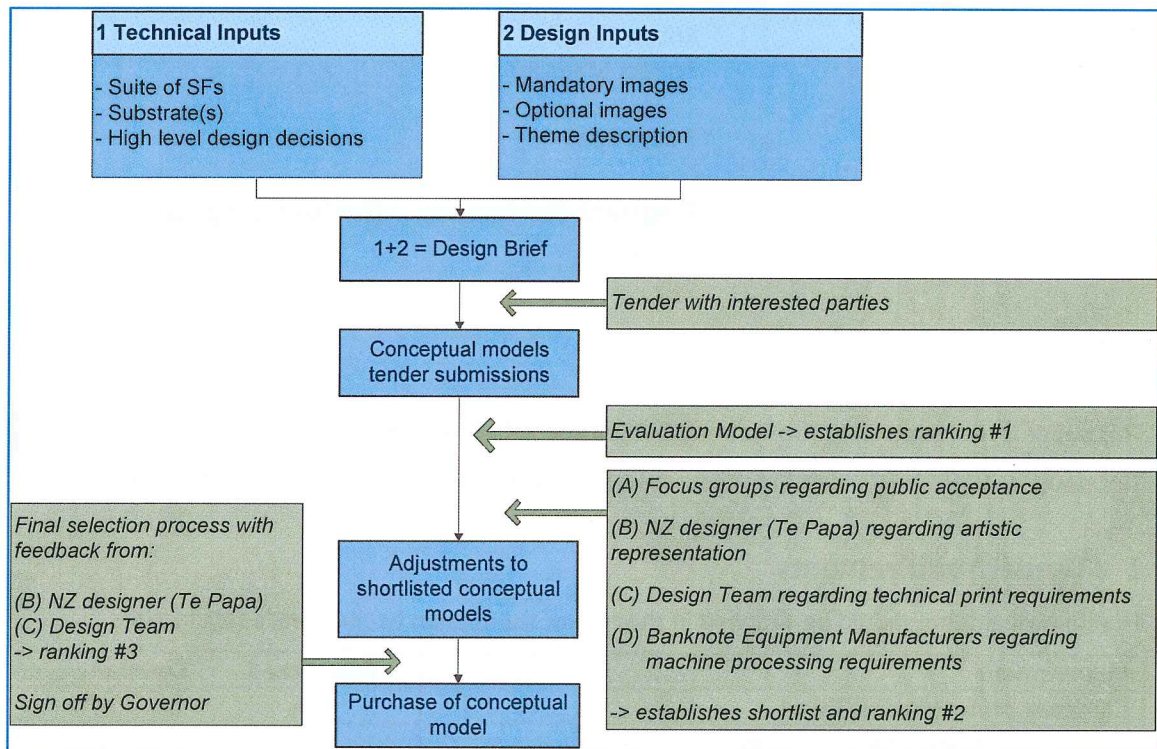
Requirement	Company 1	Company 2, etc.
Quality management system - ISO 9001	y/n	y/n
Environmental management system - ISO 14001	y/n	y/n
Occupational health and safety management system -OHSAS 18001	y/n	y/n
Security accreditations and systems	y/n	y/n
Personnel screening	y/n	y/n
Financial viability	y/n	y/n
Ethics, audit and compliance	y/n	y/n
Legal disputes	y/n	y/n
References / testimonies	y/n	y/n

3 Design

3.1 Overall design evaluation process

The method with which the conceptual models are selected was outlined in the Banknote Design Methodology paper (doc# 4722189) as part of the Procurement Plan (doc# 4726767). This is summarised in Figure 1 below.

Figure 1: Design Methodology



The inputs (technical and design specific) have been combined in the design brief, which is part of the tender documents for the conceptual models (RFT 1). The submissions to this tender will be evaluated and ranked by **variables** relating to:

1. Aesthetic appearance , and
2. Technical requirements.

Further, the conceptual models will be assessed for various **criteria** by different expert groups.

1. Design Team - including the technical print consultants

The feedback collected will result in suggestions to improve the technical aspects of the concept designs to ensure consistent print production of the banknotes by a number of competitors in the market as well as a high standard of security.

2. NZ designer

The feedback collected will result in suggestions improving artistic appeal (aesthetics) and NZ-specific facts represented in the designs.

3. Focus groups

The feedback collected will result in suggestions improving security feature recognition (verification), and cultural aspects of the designs.

4. Banknote Equipment Manufacturers

The feedback collected will result in suggestions improving the machine readability of the new banknotes for the BEMs.

After evaluation, all shortlisted designs that are considered capable of incorporating any suggested improvements will be requested to iterate their designs.

In this (these) iteration(s), the Bank will request amended Conceptual Models of the shortlisted contenders. The amendment requests will consist of the suggestions brought forward by the four groups that provided feedback during the assessment of the submissions. The adjusted conceptual models will be assessed again by the Design Team for their technical soundness and the NZ Design consultant for their artistic and cultural representation. This final round of evaluation will result in a recommendation to the Banknote Upgrade Steering Committee.

The final selection will be based on this recommendation to the Steering Committee, which will include the Governor for the final approval step.

3.2 Evaluation framework

It is important to note that the names of the submitting companies will be removed from the submissions for the assessment.

The **variables** (aesthetic appearance and technical requirements) will be assessed and through scores ranked by the following **criteria**:

1. Design aiding **counterfeit resilience** (scored by Design Team and consultants)
2. **Machine readability** (scored by Design Team and Banknote Equipment Manufacturers)
3. **Printability** (scored by consultants)
4. **Aesthetics** (scored by Design Team and Focus Groups)

The **scores** will reach from 1 to 5:

1 – Element **fails the entire design**

2 – Element **fails design partially**, needs considerable redesign

3 – Element has **minimum satisfaction**

4 – Element is well designed – **Good**

5 – Element is **Excellent**

These scores are applied to the variables as shown in (an example assessment)

Table 1.

Table 1: Design evaluation matrix

DESIGN #1		Criteria			
Variables		Counterfeit resilience	Machine readability	Printability	Aesthetics
Aesthetic					
Family resemblance between the denominations					
	Common positioning of numerals and text				
	Feature location similar on all denominations				
Continuation of current theme					
	Colour selection close to series 6 colours				
	Use of all mandatory images and same portraits				

exceeds design #1 in machine readability and both are equal in printability and aesthetics, then a weighting system shall be applied reflecting the Bank's priorities in this project, which are:

Counterfeit resilience > Machine Readability > Printability > Aesthetics

Table 2: Ranking system

Criteria	Weight	
Aesthetics	19%	1 = 2
Printability	21%	1 = 2
Machine Readability	25%	1 < 2
Counterfeit Resilience	35%	1 > 2

According to this weighting system, design #1 would be the winning design.

It is important to note that other factors may override the ranking in justified circumstances with Steering Committee approval. These factors will be specifically identified, explicitly considered against verifiable criteria and documented.

4 Origination and print capabilities

4.1 Technical requirements

In order to assess the capabilities to originate and print the series 7 banknotes, the following variables will be assessed:

1 Programme Plan

- Development and production process
- Site location
- Equipment to be used
- Printing sequence
- Finished banknote inspection system
- Quality Assurance system
- Reconciliation system and
- Destruction system

2 Origination Process

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Withhold OIA s9(2)(ba)

- Proofing process
- Experiences
- Proprietary technology

3 Print Trial

- Working tolerances of the equipment
- Finishing process
- Proprietary technology
- Experiences and customs

4 Print Capabilities

- Print capacity
- Actual print volumes during last five years

Standard machine throughput
 Material consumption
 Spoilage
 Lead times for subsequent orders
 Other parameters regarding print production

These variables are individually scored from 1 to 5. Generally, the scores interpret as follows:

- 1 – Insufficient and therefore fails the proposal
- 2 – Partly insufficient but with simple changes could become sufficient
- 3 – Sufficient
- 4 – Well equipped and sound processes
- 5 – Very well equipment and excellent processes

The interpretation of the scores per variable are listed in Appendix 1.

The scores are averaged and weighted and a technical ranking established according to the weightings in Table 3:

Table 3: Technical assessment

		Weight
1	Programme Plan	70%
2	Origination process	10%
3	Print Trials	10%
4	Print capabilities	10%

As the Programme Plan contains all equipment, quality management procedures, and most other technological criteria, the average score receives the highest weighting.

4.2 Timeline

An average score will be established indicating whether the respondent will be able to meet the Bank's anticipated timeline. The timelines for origination, proofing, print trials and production carry equal significance as shown in Table 4.

Table 4: Timeline scoring

	Weight	5 (timeline can be met)	3 (timeline could be met)	1 (timeline significantly challenged)
Timeline for Origination, proofing, print trials	50%	Completed by end of Q2 2014	Completed by end of Q3 2014	Completed after Q3 2014
Timeline for Print production	50%	Completed by end of Q2 2015	Completed by end of Q3 2015	Completed after Q3 2015

4.3 Price

A weighted average will be determined according to the financial cost of each proposal as shown in Table 5:

Table 5: Price proposal scores

	Weights	5 Low price	3 Medium Price	1 High price
(A) Own Conceptual Model	50%			
Withheld under OIA 6(c)	35%	Below Average by 15%	Average	Above average by 15%
Withheld under OIA 6(c)	65%	Below Average by 15%	Average	Above average by 15%
(B) Third party's Conceptual Model	50%			
Withheld under OIA 6(c)	35%	Below Average by 15%	Average	Above average by 15%
Withheld under OIA 6(c)	65%	Below Average by 15%	Average	Above average by 15%

The weightings of prices for originating and production of the printers' own or a third party's design are equal to express the Bank's indifference.

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4.4 Overall ranking

Overall, the offer that meets the Bank's technical requirements the best will be the preferred supplier. Thereafter, meeting the timeline is more critical than being the lowest price proposal.

The decision will be based on average weighted scores according to the weights as shown in Table 6:

Table 6: Overall scoring weights

Weights	
Technical	60%
Time	20%
Price	20%

4.5 Example

The following example illustrates the potential selection.

	Weight	Proposal 1	Proposal 2	Proposal 3
Technical requirements				
1 Programme Plan	70%	5	4	3
2 Origination process	10%	5	4	3
3 Print Trials	10%	5	4	3
4 Print capabilities	10%	5	4	3
Weighted average		5	4	3
Timeline				
Timeline for Origination, proofing, print trials	50%	3	3	3
Timeline for Print production	50%	3	3	3
Average		3	3	3
Price				
A Own Conceptual Model	50%	1	3	5
B Third party's Conceptual Model	50%	1	3	5
Average		1	3	5
Overall Score				
Technical requirements	60%	5	4	3
Timeline	20%	3	3	3
Price	20%	1	3	5
Weighted average		3.8	3.6	3.4

In this example, three proposals are submitted that have met the minimum technical criteria. Proposal 1 has the highest technological advancement and the highest price. Proposal 3 has the least technological advancement and lowest price. Proposal 2 is between proposals 1 and 2. All submissions are rated equally on time. Overall, Proposal 1 is the winning proposal. This reflects the Bank's preference for quality rather than meeting timeline and price targets.

It is important to note that other factors may override the ranking established through the scoring system in justified circumstances with Steering Committee approval. These factors will be specifically identified, explicitly considered against verifiable criteria and documented.

5 Evaluation team

As outlined above, the banknote upgrade Design Team (Don Oliver and Kristin Flavall), a representative of the NZ Police (Gordon Sharfe) will score the submissions with guidance from the

project's primary technical consultant (Dr. Bruce Hardwick). The scoring is done individually and subsequently a moderated team score will be established. If the average of the individual scores deviates materially from the moderated team score, then the variation must be explained and justified (e.g. underlying assumptions were not understood equally by all team members but agreed in moderation).

6 Recommendation

For the Steering Group to **approve** these evaluation frameworks.

Appendix 1



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