



Conservation. Awareness. Restoration. Education.

**OPTIMAL-MNS ARCHITECTURE
COMPETITION
FOR THE
ECOCARE ENVIRONMENTAL
EDUCATION CENTRE
IN KERTIH, TERENGGANU**



Objectives

1. Cultivate awareness on the mangroves and with greater knowledge, this fragile wetland ecosystem could be protected and preserved as an integral part of the land and waterways ecosystem which inevitable affects all living beings on this planet.
2. Highlight case studies and examples on the ecological disasters caused by the destruction of sensitive costal and riverine mangroves and how these destructions have caused adverse social and economical impacts on nations around the world.
3. Create a centre whereby interested public and students could appreciate and be educated on the above and bring about a better understanding on the ecosystem for this and future generations.
4. Allow interested public and students to experience first hand the beautiful mangrove ecosystem through tactile and tangible experiences.
5. Commiserating with the benevolent objectives, the centre to showcase sustainable principles in the design approach and implementation.
6. Inculcate appreciation of nature by young the minds through this competition as well as other educational programs conducted by the centre.

CULTIVATE AWARENESS

**HIGHLIGHT CASE STUDIES
AND EXAMPLES**

CREATE A CENTRE

EXPERIENCE FIRST HAND

**SHOWCASE SUSTAINABLE
PRINCIPLES**

**INCULCATE APPRECIATION
OF NATURE BY YOUNG MINDS**

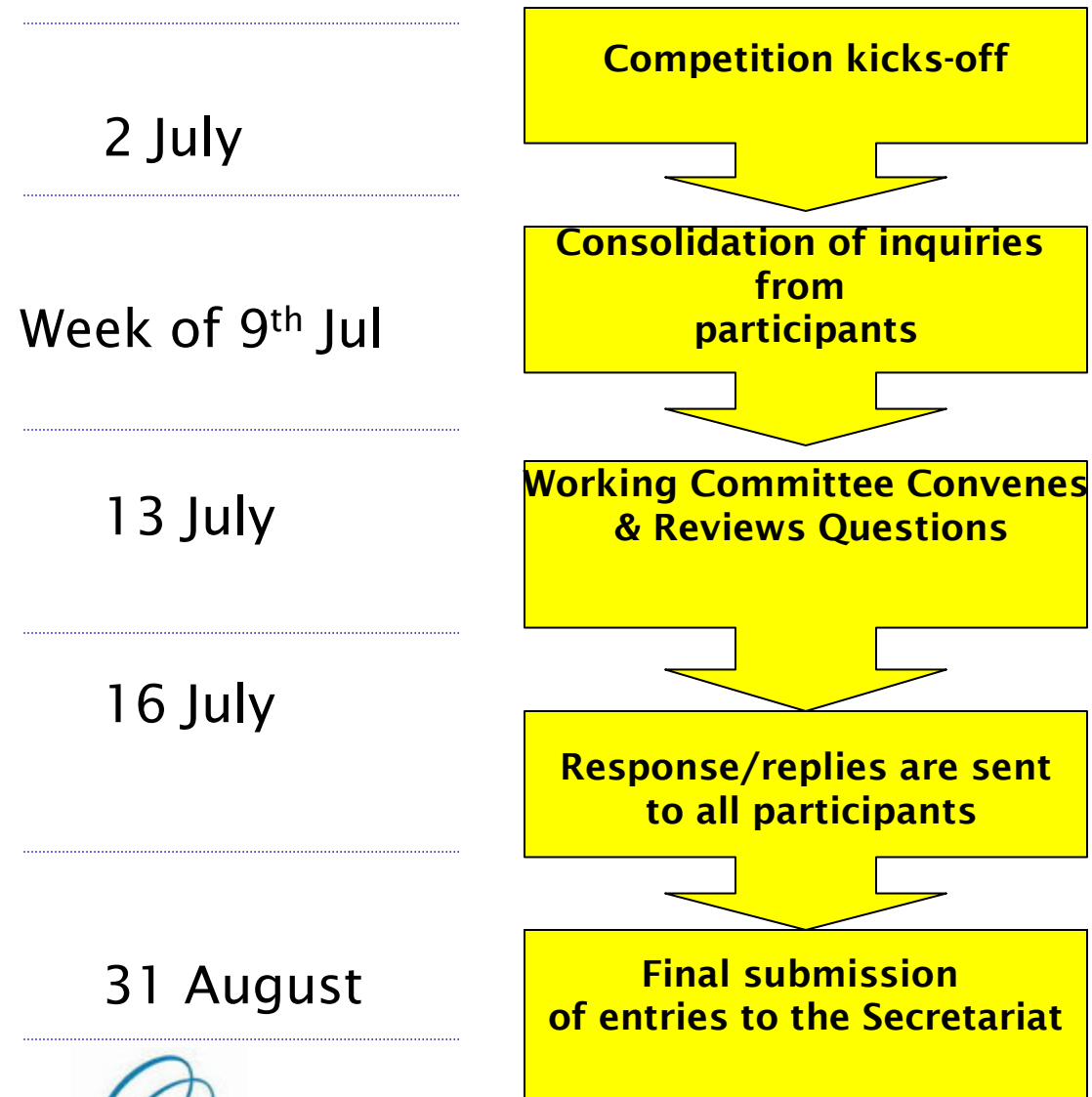
Panel of Jury

1. YBhg Dato' Seri Dr Salleh Mohd Nor – Chairman, ecoCare PSC
2. YM Dato' Tengku Mahamad Tengku Mahamut – CEO, OPTIMAL Group of Companies
3. YBhg Dato' Hashim Abd Wahab – Vice President, MNS
4. Hijjas Kasturi – CEO, Hijjas Kasturi Associates Sdn Bhd
5. Dr Reeza Azmi – Founder & Director, Wild Asia
6. Puan Rosnawati Othman – Director, Kandis Resource Centre

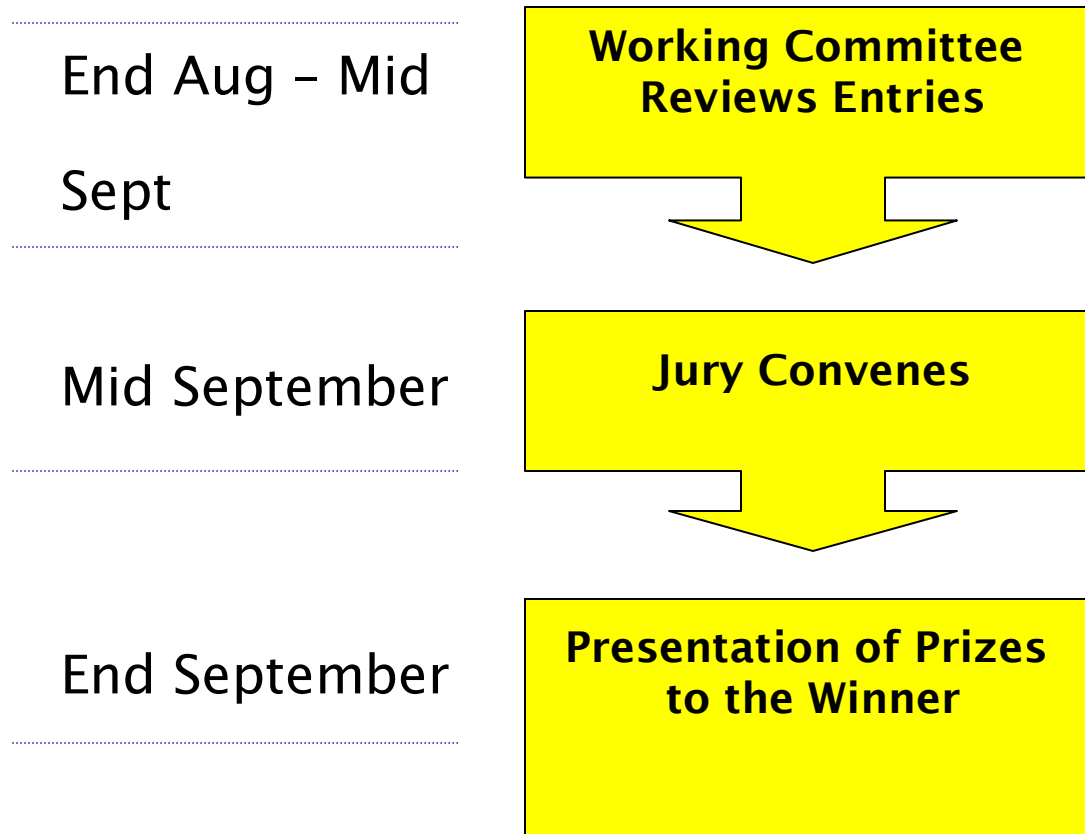
Competition Process



Competition Process

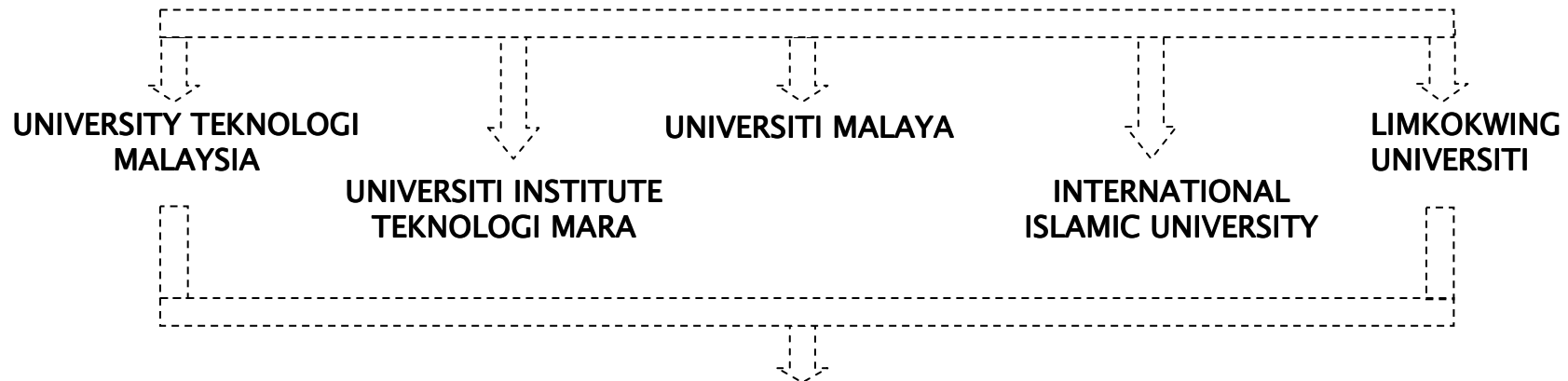


Competition Process – cont'



2 JUL 2007

LAUNCHING OF COMPETITION



END SEPT 2007

WINNER

Embedded into Hijjas Kasturi Assoc. Sdn.

HKAS

Implementation of design

END FEB 2009

COMPLETION OF CENTRE

Handover to OPTIMAL-MNS

Marking Allocations

FUNCTIONAL COMPLIANCE

5 POINTS

RESPONSE TO CONTEXT

5 POINTS

AESTHETICS

5 POINTS

SUSTAINABILITY PRINCIPLES

5 POINTS

COSTING CONSIDERATION

5 POINTS

Proposed Program

Item	Spatial Description	Net Floor Area (NFA)-sq.m	Circulation %-sq.m	Gross Floor Area (GFA)-sq.m
1.0	Auditorium - 100+ seats - Flexible arrangement - Approx. 1sq.m/person	100.00	30% -30.00	130.00
2.0	Exhibition Area - Medium size exhibition - Flexible and fixed display	90.00	20% -18.00	108.00
3.0	Dormitory - 50 beds for male - 50 beds for female - Showers and toilets - Surau	260.00	30% - 78.00	338.00
4.0	Laundry	20.00		20.00
sub-total (c/f)				593.00

Proposed Program



Conservation: Awareness: Restoration: Education.

Item	Spatial Description	Net Floor Area (NFA)-sq.m	Circulation %-sq.m	Gross Floor Area (GFA)-sq.m
			sub-total (c/f)	593.00
5.0	Resource Centre - Reference area - Wetlab - Server Room	100.00	30% -30.00	130.00
6.0	Cafeteria - 100 + seats / 50 tables - Kitchen (up to 30%)	200.00	30% - 60.00	260.00
		60.00	nil	60.00
7.0	Office and Meeting - 5 person - Approx. 5 sq.m/person - Meeting room for 10 - Enclosed space - Store room	50.00	20% -10.00	60.00
		20.00	10% - 2.00	22.00
8.0	Staff Quarters - 2 bedroom - Toilets and shower	22.00	30% - 6.6	28.60
9.0	Garage and store - 2 to 3 cars/jeeps	35.00	10% - 3.5	38.50
		50.00	10% - 5.0	55.00
			Total GFA	1247.10



Proposed Program

Item	Spatial Description
1.0	Jetty
2.0	Boardwalk
3.0	Public and visitor parking <ul style="list-style-type: none">- 25 carparking space- Buses and motorcycles parking
4.0	Guard Post and fencing <ul style="list-style-type: none">- Fencing around the immediate vicinity of the building
5.0	Bird hide etc.
6.0	Camping Site

Estimated Cost

Item	Description	Gross Floor Area (GFA) sq.m	Cost/sq.m (RM/sq.m)	Amount (RM)
A.	Building Cost			
	(1) Medium construction standards and materials	1,255.00	900	1,129,500.00
B.	External Works		allow	50,000.00
	Road works / infrastructure			
	STP			
	Jetty			
	Boardwalk			
	Public and visitor parking			
	Guard Post			
	Animal / Bird-watch Post			
	Landscaping			
	Camping Site			
C.	Professional Architect and Engineers Fees		allow	50,000.00
			subtotal (c/f)	1,229,500.00

Estimated Cost

Item	Description	Gross Floor Area (GFA) sq.m	Cost/sq.m (RM/sq.m)	Amount (RM)
				subtotal (c/f)
				1,229,500.00
D.	Planning and Submission Fees, Documentation Fees and Contributions		allow	10,000.00
E.	Supervision / Site Staff - 6 months construction - 1 Architectural COW		allow	20,000.00
			Total Project Cost	1,259,500.00

Work Program

Item	Description	Timeline
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Schematic Design Phase

1.0	Competition	2 Jul – End Aug 2007 * Q&A
2.0	Jury Assessment	End Aug – Mid Sept 2007
3.0	Float	Mid Sept – End Sept 2007
3.0	Award Design	End Sept 2007 ◆

Design Development Phase

1.0	Developing Design with Professionals	End Sept – End Oct 2007
2.0	Prepare Submission Drawings for DO Approval	End Oct – End Nov 2007
3.0	Float – Wait For Majlis Daerah Kertih Approval	End Nov 2007 – Mid January 2008
4.0	Special Permission To Start Earthworks	End November 2007 ◆
5.0	Planning Approval	Mid January 2008 ◆

◆ Milestone

Work Program

Item	Description	Timeline
Design Development Phase		
6.0	Prepare for Building Approval	Mid January 2008 – End January 2008
7.0	Float – Wait For Majlis Daerah Kertih Approval	End January 2008 – Mid March 2008
3.0	Approval	Mid March 2008 ◆
Tender Documentation Phase		
1.0	Preparation of Tender Documents	Mid October 2007 – End January 2007
2.0	Tender Period	End January 2007 – End February 2008
3.0	Award of Tender	End February 2008 ◆
Contract Implementation		
1.0	Construction Period 12 Months	End February 2008 – End February 2009
2.0	Certificate of Compliance and Completion (CCC)	End February 2009 ◆



Thank You For Helping Me