

*Pembangunan  
' SMART LIGHTWEIGHT  
CONCRETE PLANT '  
sebagai  
elemen bantuan mengajar bagi  
Jabatan Kejuruteraan Awam di Politeknik  
Politeknik Malaysia*



### KEY PARTNER

R&D TEAM  
 DESIGN & TECHNICAL  
 LAB TESTING  
 LEGAL

ICEZ

MANUFACTURE  
 INSTALLER

GRN

MARKETING  
 CUSTOMER SUPPORT

MC

FUNDER

CM

### KEY ACTIVITIES

MARKETING

MANUFACTURE

CONSTRUCTION

TRAINING MODULS TO  
 TRAINER (TOT)

COMMISIONING

SUPPORT SERVICE

### KEY RESOURCES

LOCAL R&D IBS SUPPORT  
 ELEMENTS FOR TEACHING  
 PURPOSE

EXPERT & EXPERIENCE  
 TEAM

SMART SYSTEM – AI  
 ELEMENTS AND  
 MECHATRONIC FUNCTION

### VALUE PROPOSITIONS

TVET SUPPORTING  
 ELEMENTS . CREATING  
 HAND ON EXPERIENCE  
 TECHNICIAN IN IBS .  
 MASTERING SPECIAL  
 MATERIAL

TEACHING FACTORY -  
 PARADIGM PROVIDES A  
 REAL-LIFE ENVIRONMENT  
 FOR STUDENTS AND  
 RESEARCH ENGINEERS TO  
 DEVELOP THEIR SKILLS AND  
 COMPREHEND THE  
 CHALLENGES INVOLVED IN  
 EVERYDAY INDUSTRIAL  
 PRACTICE

### CUSTOMER RELATIONSHIP

SUPPORT FROM KPT AND  
 POLIMAS, PROJECT  
 CONCEPT ACCEPTED AND  
 APPRICIATED

DIRECT PROFESIONAL  
 APPROCH TO CUSTOMER

PROVIDING INTERGRATED  
 SOLUTION IN IBS ( LWC)

### CHANNELS

APPOINTMENTS – FOR  
 PRESENTATION

INFORMATIVE AND  
 ILUSTRATED WEBSITE TO  
 ASSIST CUSTOMER  
 UNDERSTAND THE  
 PRODUCT AND ITS  
 APPLICATION

ARTIS IMPRESSION ON  
 PROPOSED PROJECT

### CUSTOMER SEGMENTS

**POLITECNICS**  
 36 POLITECNICS IN  
 MALAYSIA - MARKET  
 PROPOSION 20% - 8  
**POLITECNICS**

**UNIVERSITIES**  
 IPTA 20  
 IPTS 48  
 MARKET PROPOSION 10 %  
 - 14 UNIVERSITIES

### COST STRUCTURE

MARKETING & CONSULTANCY	5.0 %
FABRICATION & INSTALLATION	65.0 %
AFTER SALES	5.0 %
TOTAL COST	75.0 %
<b>GROSS PROFIT</b>	<b>25.0 %</b>

### REVENUE STRUCTURE

SLP COMPLETE PLANT	RM 1,000,000.00 / PLANT
SLP SINGLE UNITS	RM 150,000.00 /UNITS
CONSUMABLES – CHEMICAL	RM 50,000.00/ PLANT/YEAR
SUPPORT ELEMENTS – MOULD	RM 100,000.00 /PLANT/ YEAR
ESTIMATE 5 PALNT PER YEAR	RM 5,000,000.00 PLANT
	RM 250,000.00 CHEMICAL
	RM 500,000.00 MOULD/OTH
<b>TOTAL ESTIMATE SALES</b>	<b>RM 5,750,000.00 / YEAR</b>

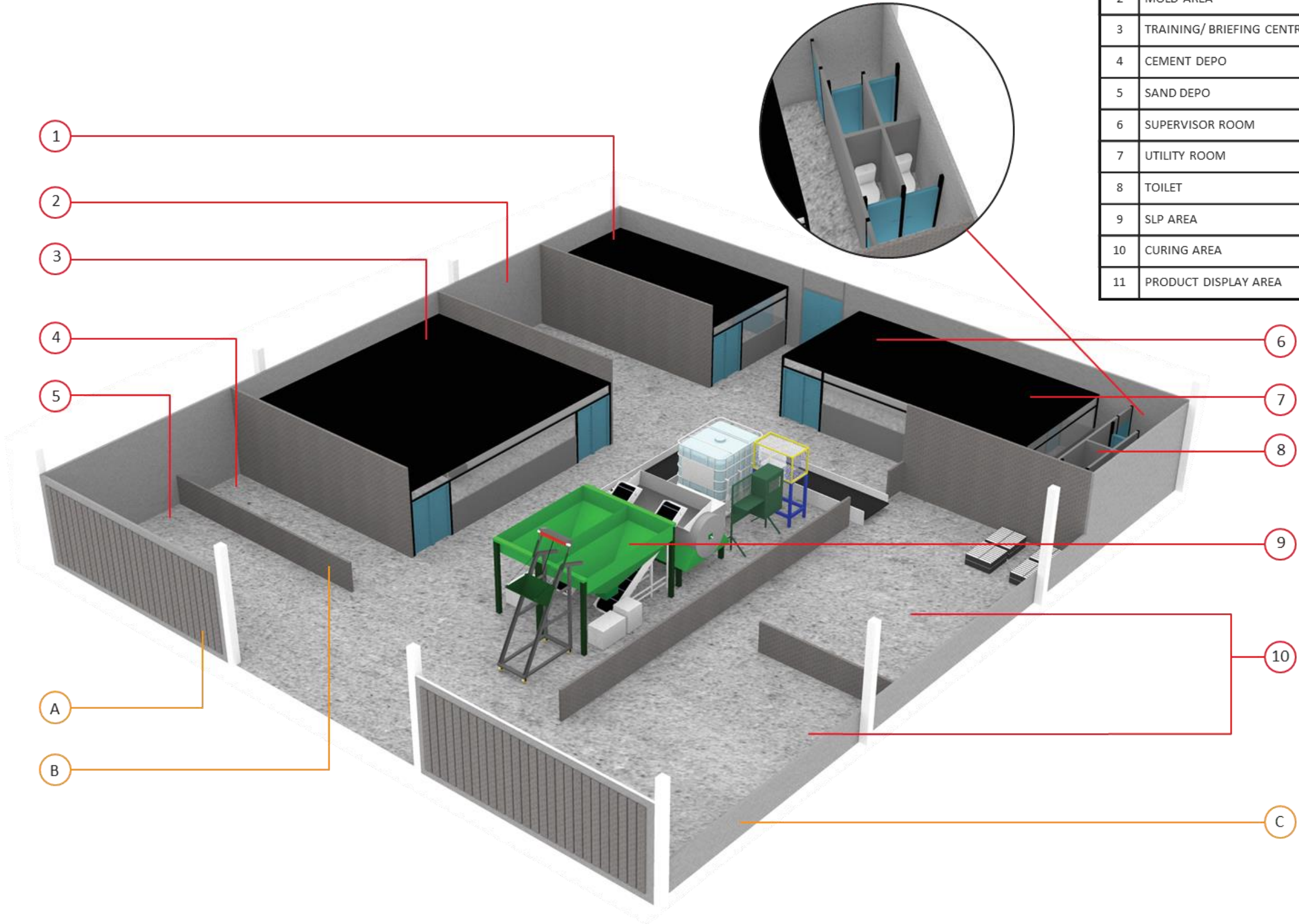
## *SLP Facility - Building Design & Specification*



Land area	12,000 SF
Building area	9,000 SF
Building concept	IBS
Main building materials	LWC

- A** INTERLOCKING PANELS
- B** INTERLOCKING BLOCKS
- C** CONVENTIONALBLOCKS

NO	BUILDING INCLUSION
1	MATERIAL TESTINGLAB
2	MOLD AREA
3	TRAINING/ BRIEFING CENTRE (ENCLOSED)
4	CEMENT DEPO
5	SAND DEPO
6	SUPERVISOR ROOM
7	UTILITY ROOM
8	TOILET
9	SLP AREA
10	CURING AREA
11	PRODUCT DISPLAY AREA



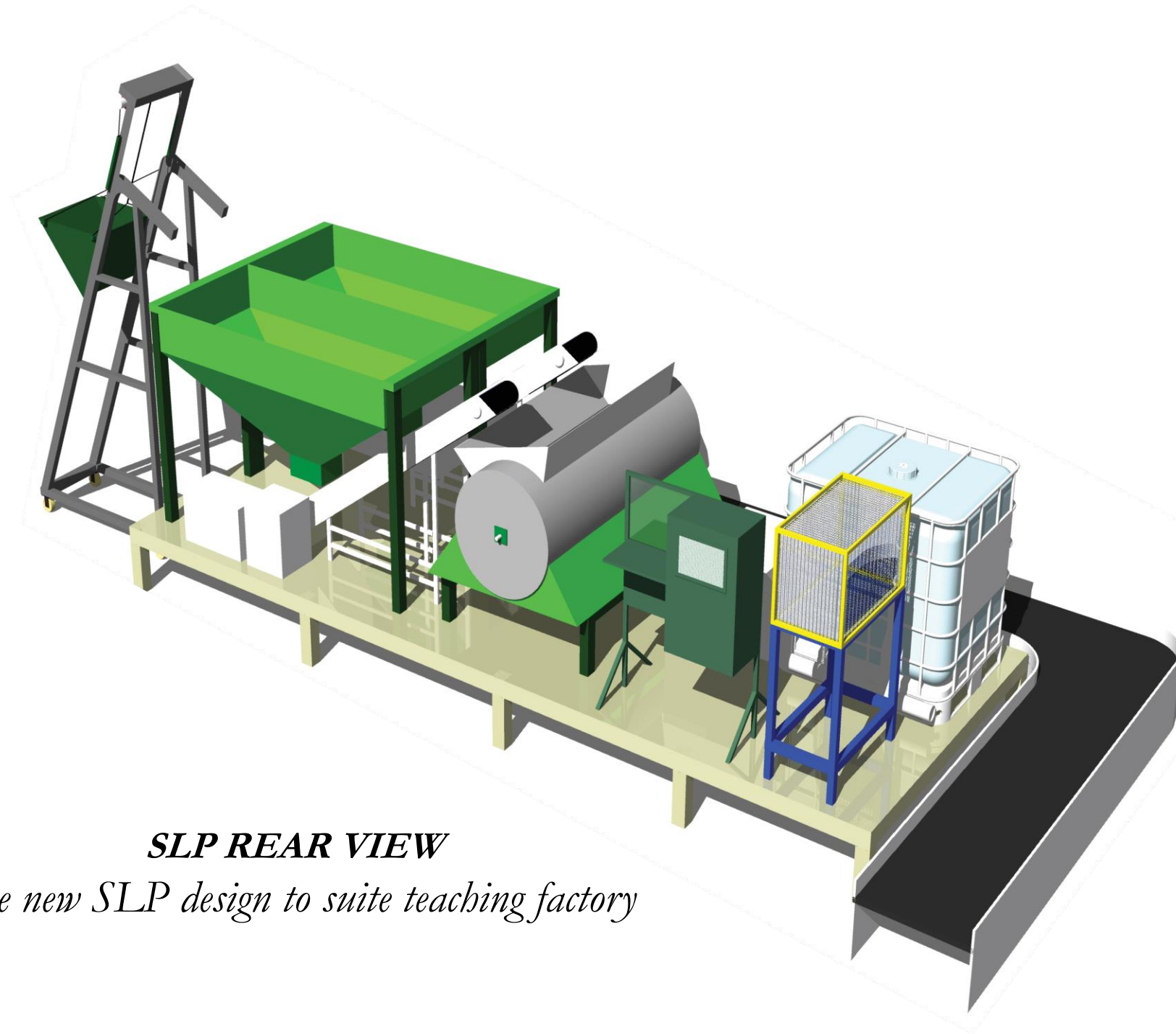
# *What is SLP*

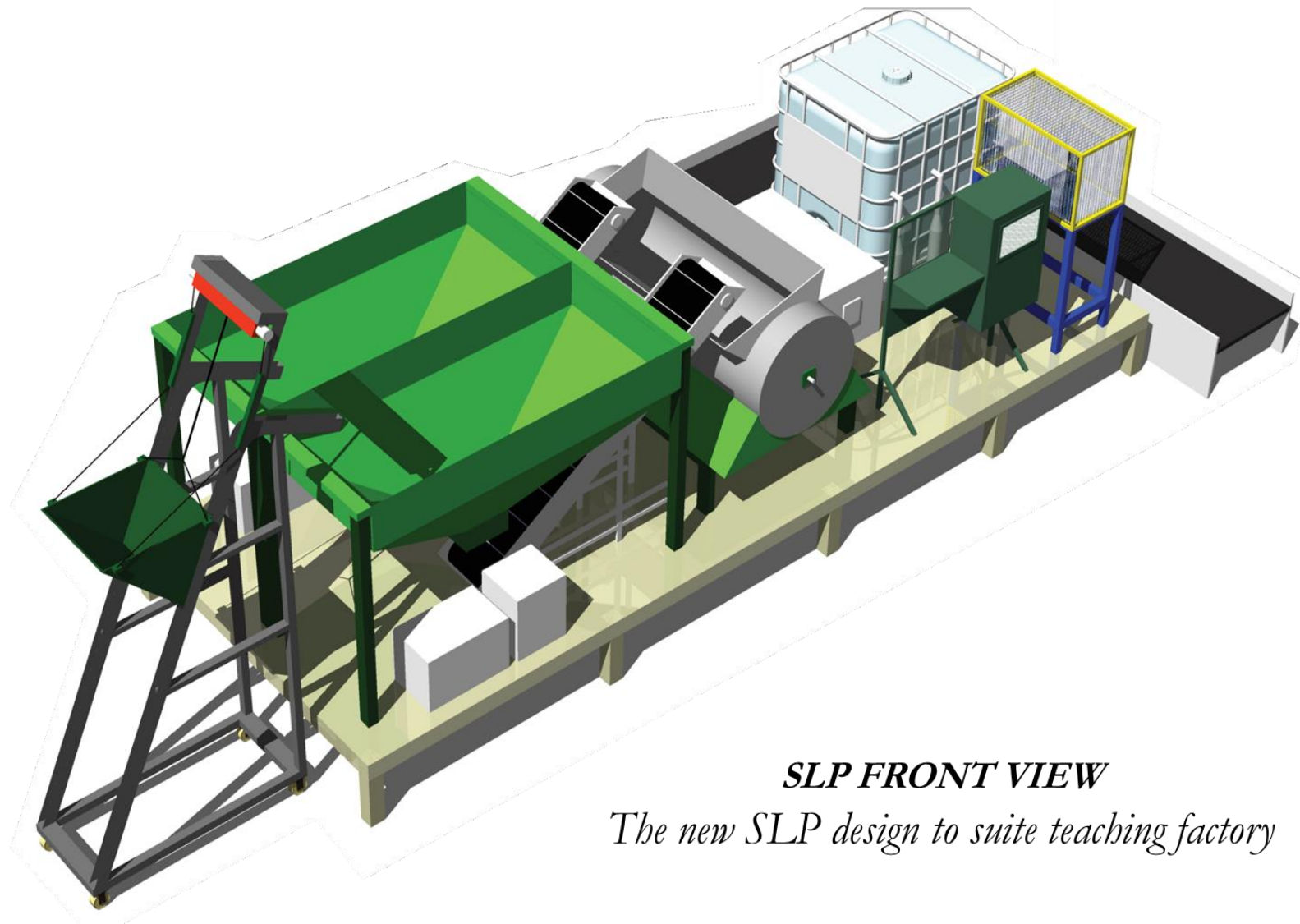
***SMART  
LIGHTWEIGHT  
CONCRETE PLANT  
is***

*a blend of Artificial Intelligence and Mechatronic technology to form a user's friendly unit in producing an acceptable standard foamed Concrete . The system basically control the generation and dispensing of stable foam and a right quantity of sand , cement and water into a mixer to equally blend and to produce a required density Foam Concrete for production of any downstream FC products.*

## ***SLP REAR VIEW***

*The new SLP design to suite teaching factory*





**SLP FRONT VIEW**

*The new SLP design to suite teaching factory*

# *Need of SLP*

## ***SMART LIGHTWEIGHT CONCRETE PLANT***

*To produce good ( Consistent quality base on required specification ) Foamed Concrete we Need a special formulation of stable foam and slurry of cement composition. To ensure the right formulation and mixing arrangement a SLP is required . Without such system a Foamed concrete producer has to manually mix the stable foam with a slurry of cements and it always end up with 'off-spec' product if not totally rejected.*



*SMART LIGHTWEIGHT  
CONCRETE PLANT*