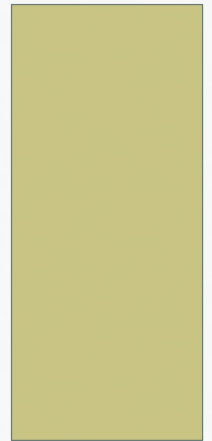




CLUJ INNOVATION PARK

COMUNITATE SUSTENABILA BREEAM

BREEAM INTERNATIONAL ASSESSOR
DIPL. ENG. ALEXANDRA STOICA

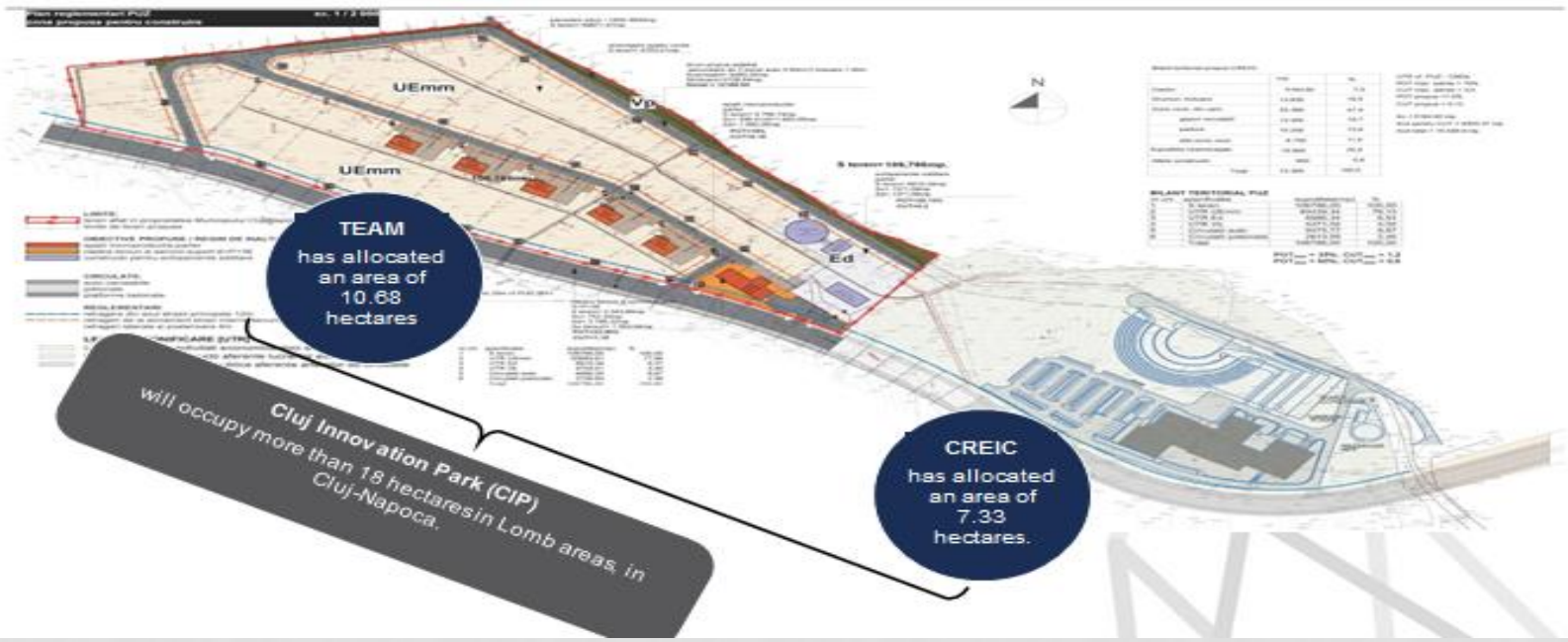


CLUJ INNOVATION PARK - amplasament



CLUJ INNOVATION PARK – proiecte propuse prin Plan Integrat de Dezvoltare Urbana Cluj

CIP- Located in Lomb Area



Steps in Breeam Communities



- **Step 1:** Establishing the Principles of Development
- **Step 2 :** Determining the layout of the Development
- **Step 3:** Designing the details

STEP 1: ESTABLISHING THE PRINCIPLES OF DEVELOPMENT

Step 1: Establishing the principle of development

GO 01 - Consultation plan

SE 01 - Economic impact

SE 02 - Demographic needs and priorities

SE 03 - Flood risk assessment

SE 04 - Noise pollution

RE 01 - Energy strategy

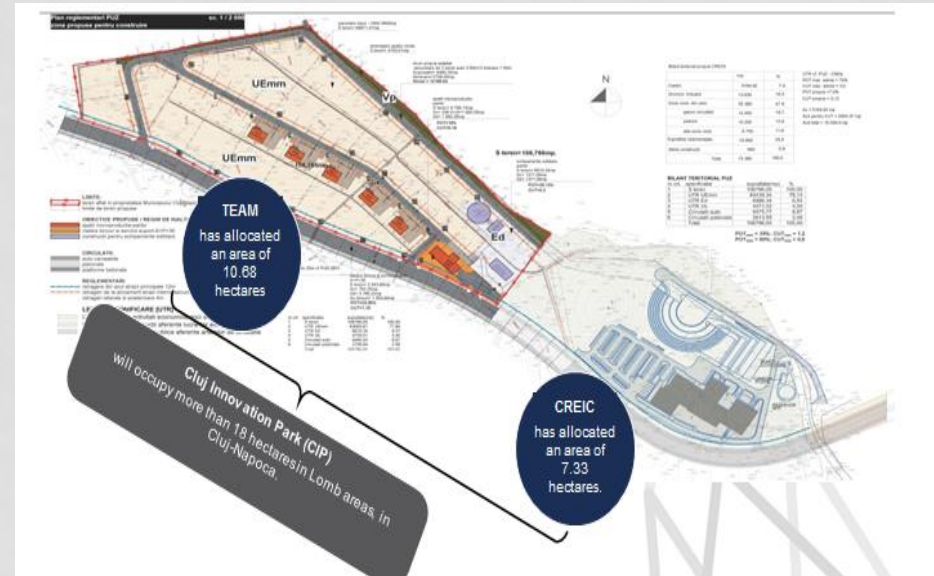
RE 02 - Existing buildings and infrastructure

RE 03 - Water strategy

LE 01 - Ecology strategy

LE 02 - Land use

TM 01 - Transport assessment



Consultation Plan : CREIC & TEAM :

7,33 hectares – Regional Center of Excellence for Creative Industries

10 hectares – TEAM Technology Center , Evolution , entrepreneurship and microenterprise

STEP 1: Economic Impact, Demographic needs & priorities, Noise pollution, Existing Buildings

Offer:	Offices	Media Production Offices	Film Production Facilities	Workshops for Creatives	Micro Halls	Land Lots
CREIC/ TEAM	CREIC & TEAM	CREIC	CREIC	CREIC	TEAM	TEAM
Surface [sm]	3,200	408	946	966	1,538	68,000
Purpose	Office activities	Media producers	Film producers	Creative industries	Manufacturing and services	Constructions
Details	A class Offices with variable surfaces	3 Offices	Film production Hall, Film Theatre, Technical spaces	5 Work Shops	5 microhalls with all facilities	Investors who want to build their own facilities.

• Economic Impact:

- - 3200 sqm Class A offices
- 408 sqm Media Producers (CREIC)
- 946 sqm Film Producers (CREIC)
- 966 sqm Creative Industries (CREIC)
- 1538 sqm Manufacturing & Services in TEAM
- 68000 sqm Constructions in TEAM
- No existing Buildings at the present, according to Master Plan

STEP 1: Energy Strategy



- **Energy Strategy :**
- **Mixed alternative energy farm : photovoltaics & wind farm – of about 2,5 MWh**
- **Wind turbine** - Thanks to smart sensor technology- starts up when the wind speed reaches **a mere 3.5 m/s.**
- **Photovoltaics** are fitted to a swivel axis inclined at up to 20° and are continuously aligned with the current position of the sun by means of a rotation angle of $\pm 45^\circ$.



WindCarrier installation



SunCarrier 22 tracking system series

STEP 1: Water Strategy, Land Use Impact



- **Water Strategy :**

- Collecting the rain waters and use them for irrigation and toilets
- Treatment of the grey and black water are reuse them for irrigation & toilets
- Using the appropriate landscape and vegetation for the entire region, so the plants won't need supplementary water

Land Use Impact:

Low pollution buy using green, sustainable energy, a well planned water strategy, energy efficient and energy saving equipment, smart metering & monitoring of energy and water systems

Planting local plants , that don't need additional water and thrive for local conditions



STEP 1: Ecology Strategy



STEP 2: DETERMINING THE LAYOUT OF THE DEVELOPMENT

Step 2: Determining the layout of the development

GO 02 - Consultation and engagement

GO 03 - Design review

SE 05 - Housing provision

SE 06 - Delivery of services, facilities and amenities

SE 07 - Public realm

SE 08 - Microclimate

SE 09 - Utilities

SE 10 - Adapting to climate change

SE 11 - Green infrastructure

SE 12 - Local parking

SE 13 - Flood risk management

LE 03 - Water pollution

LE 04 - Enhancement of ecological value

LE 05 - Landscape

TM 02 - Safe and appealing streets

TM 03 - Cycling network

TM 04 - Access to public transport



STEP 3: DESIGNING THE DETAILS

Step 3: Designing the details

GO 04 - Community management of facilities

SE 14 - Local vernacular

SE 15 - Inclusive design

SE 16 - Light pollution

SE 17 - Training and skills

RE 04 - Sustainable buildings

RE 05 - Low impact materials

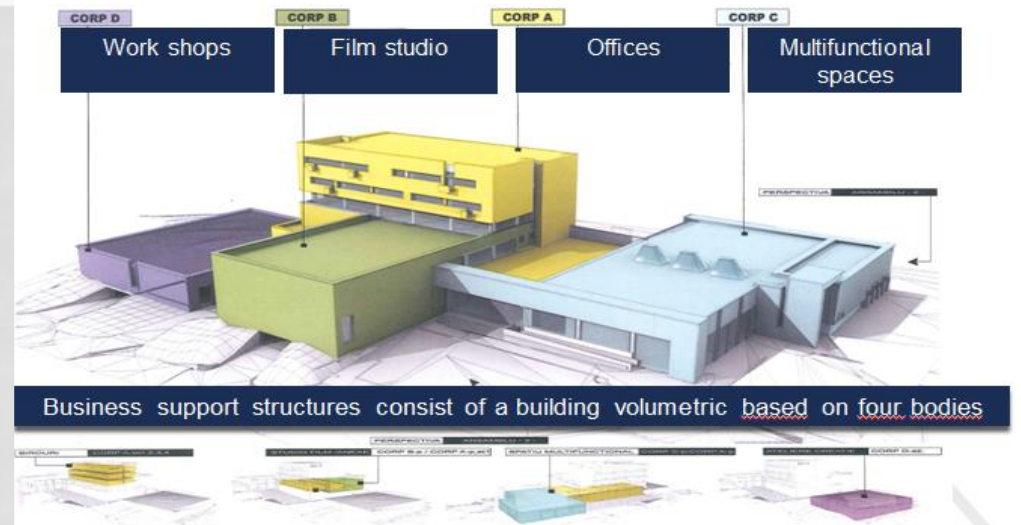
RE 06 - Resource efficiency

RE 07 - Transport carbon emissions

LE 06 - Rainwater harvesting

TM 05 - Cycling facilities

TM 06 - Public transport facilities



Total area: 106,786 sm

Useful area: 4,840 sm

Build area: 3,788 sm

Office buildings and support:
3,301 sm,

Five microhalls: 1,538 sm



DESIGNING THE DETAILS: HEALTH & COMMUNITY

The Benefits: Health & Community



DESIGNING THE DETAILS: THE ECONOMY

The Benefits: The Economy



DESIGNING THE DETAILS: THE ENVIRONMENT

The Benefits: The Environment



