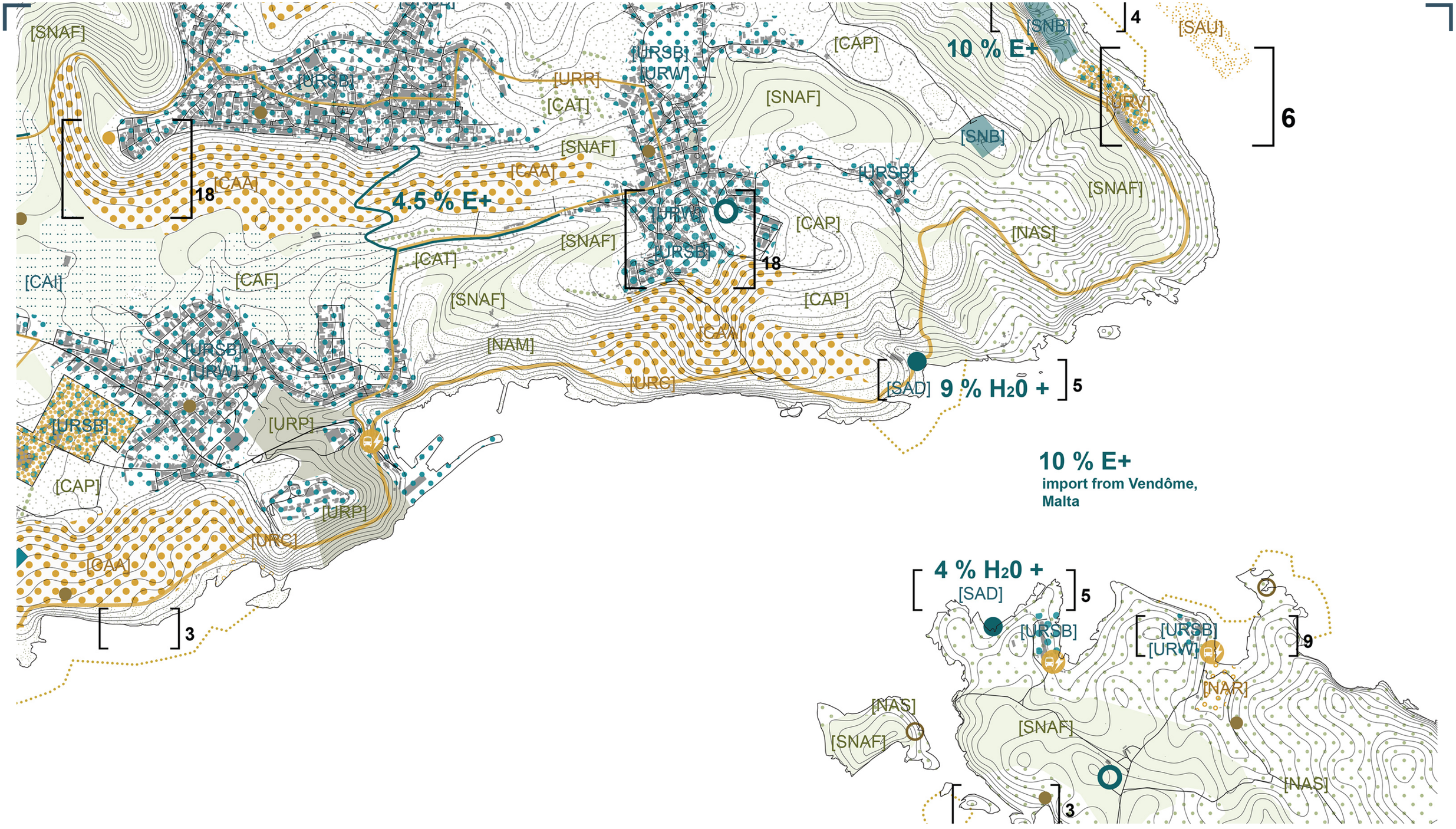

Country / City	Slovenia
University / School	University of Ljubljana/ Biotechnical faculty
Academic year	2017/ 18
Title of the project	**Gozo Goes Green**
Authors	Urška Eler, Dominik Jakša, Nika Marn, Petra Pečan, Živa Pečenko, Tom Pogačar

PERFORMATIVE NATURE

Barcelona International Landscape Architecture Biennial

September 2018 Barcelona

SCHOOL PRIZE

X International Landscape Architecture Biennial

Máster d'Arquitectura del Paisatge -DUOT - UPC
ETSAB- Escola Tècnica Superior
d'Arquitectura de Barcelona
Avenida Diagonal, 649 piso 5
08028 Barcelona-Spain

TECHNICAL DOSSIER

Title of the project	**Gozo Goes Green**
Authors	Urška Eler, Dominik Jakša, Nika Marn, Petra Pečan, Živa Pečenko, Tom Pogačar
Title of the course	Le:NOTRE Student Competition: Future! Envisioning the Eco Island of Gozo in 2050, **1st PRIZE**
Academic year	2017/18
Teaching Staff	dr. Nadja Penko Seidl, dr. Tomaž Pipan
Department/Section/Program of belonging	Department of Landscape Architecture
University/School	University of Ljubljana, Biotechnical Faculty

Written statement, short description of the project in English, no more than 250 words

We recognise eco-tourism and regional agriculture as mitigation strategies for the increased climate change consequences, and as the most viable approach for the spatial development of Gozo and Comino, Malta. The vision proposes new green infrastructure and landscape related principles – advocating for nature that is both ecologically performative as well as socio-economically seductive. We suggest rational exploitation of water resources, as well as promote renewable and self-sufficient energy production. At the same time, we introduce new green infrastructure through ecological land use changes, proposed on areas with weaker landscape character, prone to erosion and environmental degradation.

On these degraded areas, afforestation is suggested, in order to improve (micro) climatic conditions and soil stabilization. Afforestation also unlocks social and economic benefits as it creates new opportunities for eco-tourism and recreation. Landscape identity and characteristic landscape typologies are preserved through agro-tourism and traditional agriculture. High-technology agriculture is developed in forms of vertical and underwater farming, due to its independent, self-regulated microclimate and especially due to optimized use of water and nutrients. Problem of water deprivation is resolved by establishing a comprehensive system for seawater desalination, rainwater harvesting and wastewater recycling. Energy self-sufficiency is predominantly achieved by solar energy production, placed on solar island, main roads and rooftops. Energy is also partly produced from biogas, which is as well used for local transport needs.

For further information
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FROM ANALYSIS AND EVALUATION TO SCENARIOS

1a economy

1b landscape

1c energy and water

2a climate change

selected indicators

observing
- extreme weather conditions
- change of temperature
- amount of percipitation
- water management
- energy supplies by types of sources
- potential for solar energy
- geological structure

2b regional agricultural production and marketing

observing
- land use changes
- landscape typology and identity
- nature conservation regimes
- erosion processes
- alternative farming methods vs. traditional farming methods
- amount of food production
- share of exported and imported goods

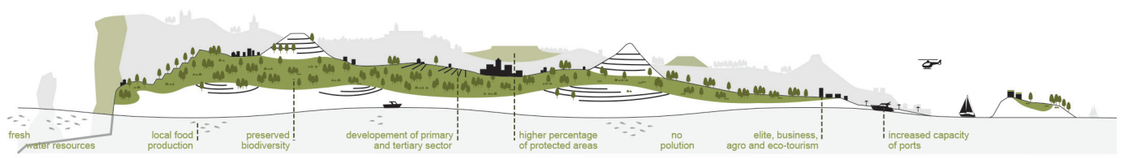
2c eco and heritage tourism

observing
- types of tourism
- natural, cultural and landscape heritage
- historical development of settlements
- shares of employment by each sector activity
- accommodation capacity
- local cultural events
- international, regional and local transport connections

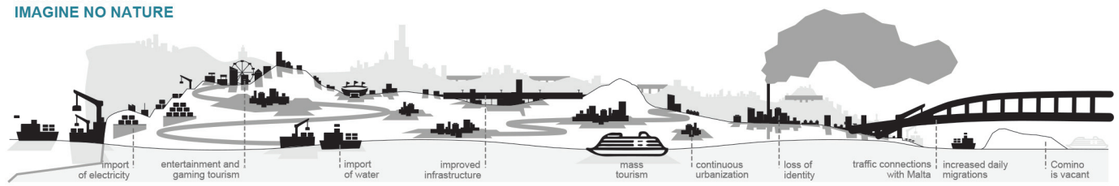
observing effects of driving forces on existing space

continuous cultivation of land
agricultural scenario
LET IT GROW

continuous trends in tourism and preserving landscape identity
elite eco tourism scenario
IN THE SKY WITH DIAMONDS



continuous urbanization, desertification and effects of climate change
industrial scenario
IMAGINE NO NATURE



EXISTING LANDSCAPE ELEMENTS AND TYPOLOGY

LANDSCAPE ELEMENTS

RELIEF AND GEOMORPHOLOGY
- rocky surface
- carst edge
- coast with cliffs
- coast with caves
- sandy coast
- rocky coast
- plateau
- river valley
- sinkhole
- hill
- river canyon

WATER FEATURES
- pond
- wetland
- dry stream
- water reservoir
- coastline

VEGETATION
- tree
- group of trees
- shrubs
- vineyards
- olive tree plantation
- orchard
- pasture, meadow
- joined fields
- fragmented fields

BUILT ELEMENTS
- rubble walls
- terraced land
- deserted terrace
- sanctuary
- salt pans
- lighthouse
- windmill
- monument
- linear settlement
- nucleated settlement
- dispersed settlement

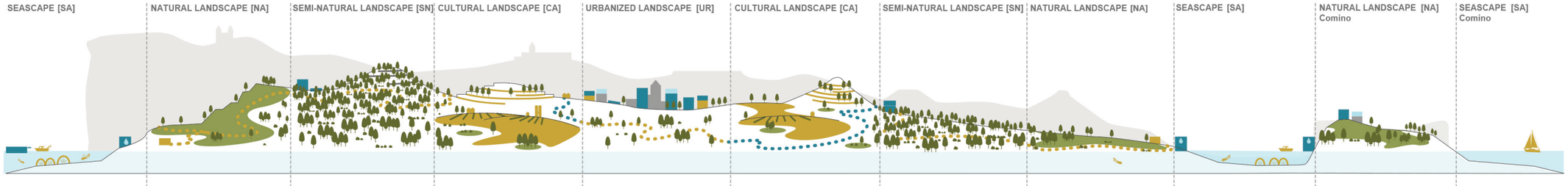
LANDSCAPE TYPOLOGY

INLAND HILLS
- conical hill
- plateau
- plateau with settlement

RIVER VALLEYS
- canyon
- half dry river valley
- dry valley

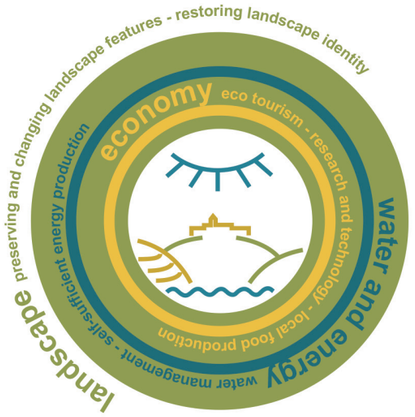
COAST LAND
- cliff coastline with caves
- lagoon coast
- coast with salt pans

NEW LANDSCAPE PRINCIPLES

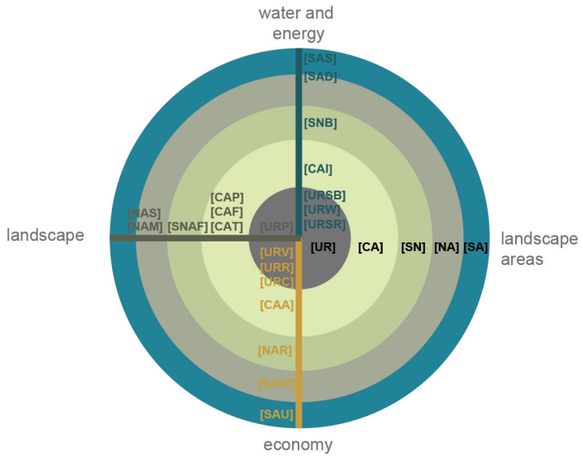


shares of landscape principles by area

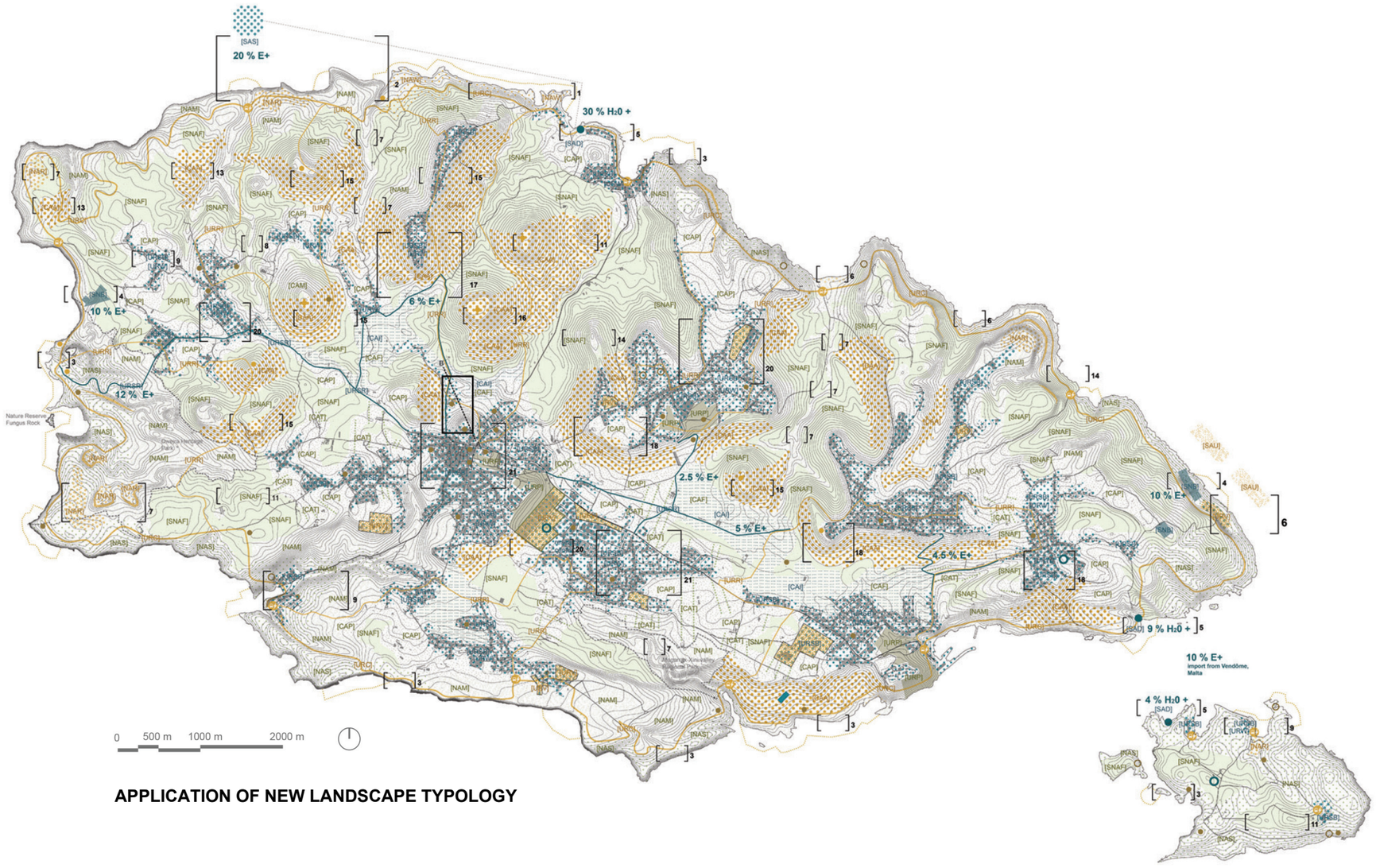
VISION



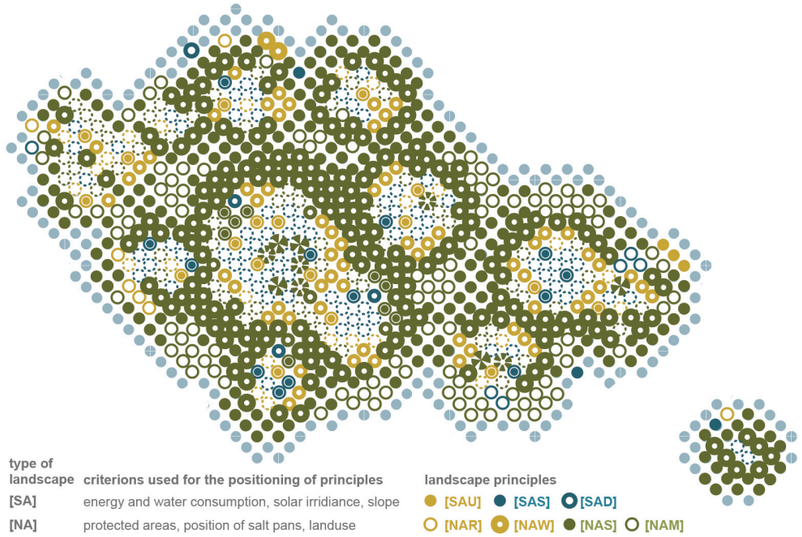
CONCEPT DEVELOPMENT



MASTERPLAN OF GOZO

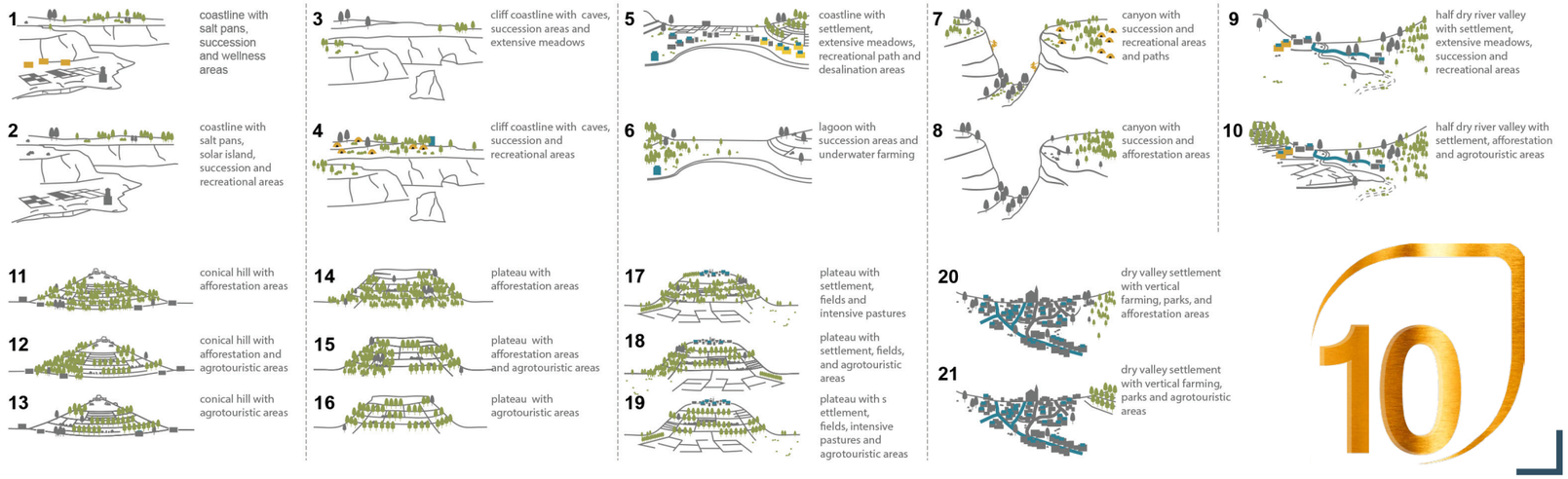


SPATIAL DISTRIBUTION OF LANDSCAPE PRINCIPLES

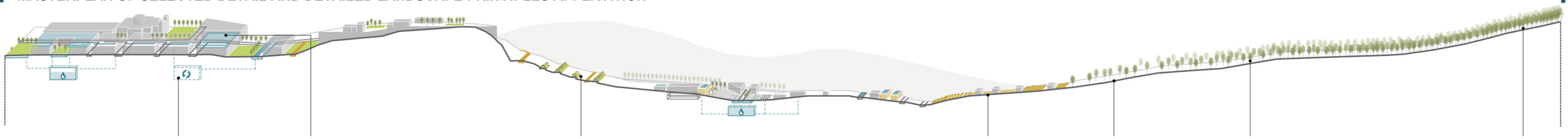


type of landscape	criterions used for the positioning of principles	landscape principles
[SA]	energy and water consumption, solar irridiance, slope	[SAU] [SAS] [SAD]
[NA]	protected areas, position of salt pans, landuse	[NAR] [NAW] [NAS] [NAM]
[SN]	erosion and degraded areas, distance from urban areas	[SNAF] [SNB]
[CA]	landscape typology, terraces, aspect, water system	[CAA] [CAT] [CAF] [CAP] [CAI]
[UR]	natural and cultural sights, aspect, slope, urban areas	[URR] [URC] [URV] [URP] [URSR] [URSB], [URW]

APPLICATION OF NEW LANDSCAPE TYPOLOGY



MASTERPLAN OF SELECTED DETAIL AND DETAILED LANDSCAPE PRINCIPLES APPLICATION



[URV] vertical farming area

[URW] water harvesting area

[URSB] solar panels on buildings

[URSR] solar panels on roads

[URR], [URC] recreational path, circular path

[URP] parks

[CAT] tree corridor

[CAA] agrotouristic area

[CAF] fields

[CAP] intensive pasture

[CAI] irrigation

[SNAF] afforestation area