



2018

Landscapes and systemic design: Po river Delta (Italy) case

Cattozzo, Luisa and Marotta, Leonardo

Suggested citation:

Cattozzo, Luisa and Marotta, Leonardo (2018) Landscapes and systemic design: Po river Delta (Italy) case. In: Proceedings of RSD7, Relating Systems Thinking and Design 7, 23-26 Oct 2018, Turin, Italy. Available at <http://openresearch.ocadu.ca/id/eprint/2714/>

Open Research is a publicly accessible, curated repository for the preservation and dissemination of scholarly and creative output of the OCAD University community. Material in Open Research is open access and made available via the consent of the author and/or rights holder on a non-exclusive basis.

The OCAD University Library is committed to accessibility as outlined in the [Ontario Human Rights Code](#) and the [Accessibility for Ontarians with Disabilities Act \(AODA\)](#) and is working to improve accessibility of the Open Research Repository collection. If you require an accessible version of a repository item contact us at repository@ocadu.ca.

**CHALLENGING COMPLEXITY
BY SYSTEMIC DESIGN
TOWARDS SUSTAINABILITY**

**RSD7 - RELATING SYSTEMS THINKING AND DESIGN 7
SYMPOSIUM - TURIN - OCTOBER 24-26. 2018**

Landscapes and systemic design: Po river Delta (Italy) case study

Luisa Cattozzo¹, Leonardo Marotta²

¹Università IUAV di Venezia, Santa Croce, 1957, Venezia, 30100, Italia;

²Studio Associato Entropia, via F. Corridoni 3, Recanati, 62019, Italia



territorial regeneration by ***closing the cycles***

re-building of ecological processes and risks reduction at **landscape scale**



territorial **regeneration by *closing the cycles***

re-building ecological processes and risks reduction at **landscape scale**



analysis of the state-of-art and configuration of sustainable development scenarios by adopting the **approach of *Geographical Systemic Design***



territorial **regeneration by *closing the cycles***

re-building of ecological processes and risks reduction at **landscape scale**



analysis of the state-of-art and configuration of sustainable development scenarios by adopting the **approach of *Geographical Systemic Design***



Project proposals (*inspired by the Blue Economy*) based on recycling and reusing local materials (**waste to resource** strategy)

regeneration of ecological processes of the Po river delta area

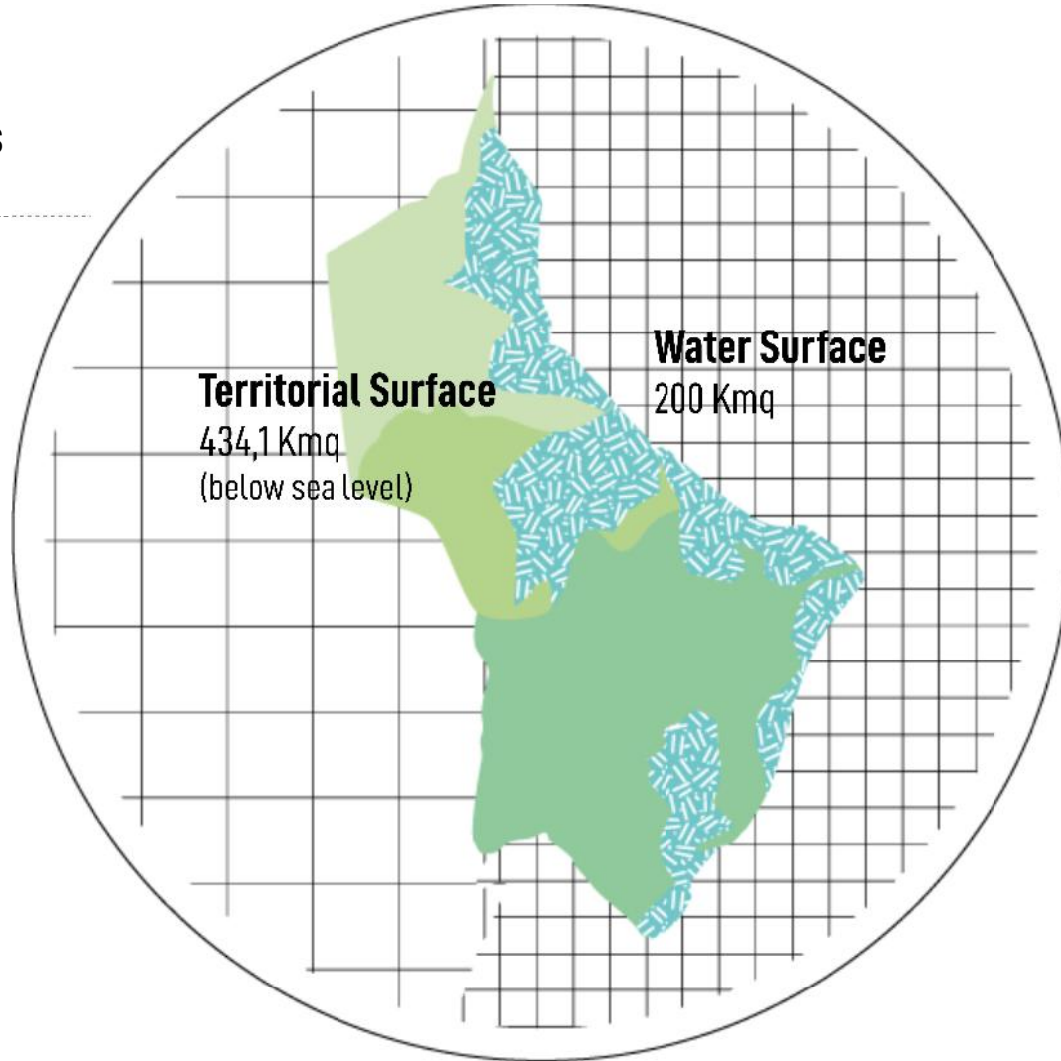
Holistic diagnosis of the Po river delta



3 Municipalities



60 Planning tools



ECONOMY

Main activities:



Agriculture



Farming



Shellfish



ENVIRONMENT



'Delta del Po'
Regional park



MAB Unesco
Biosphere Reserve



Nature 2000 pSCI and SPAs



SOCIETY



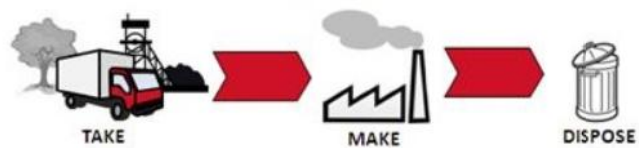
30.803 inhabitants

70,93 population density

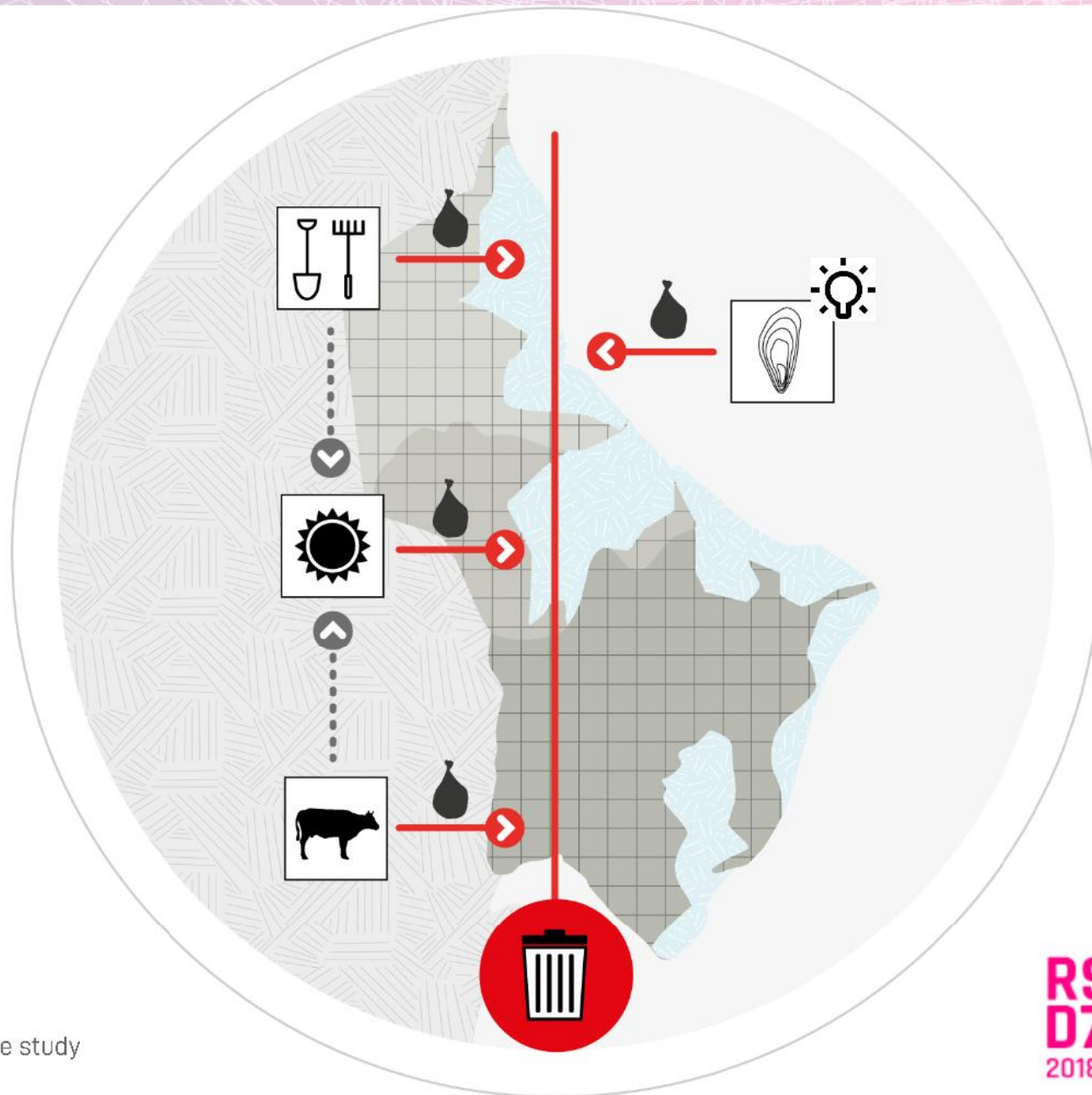
- 1,75% demographic trend

9,3% unemployment rate

Analysis of the current production model



Linear model



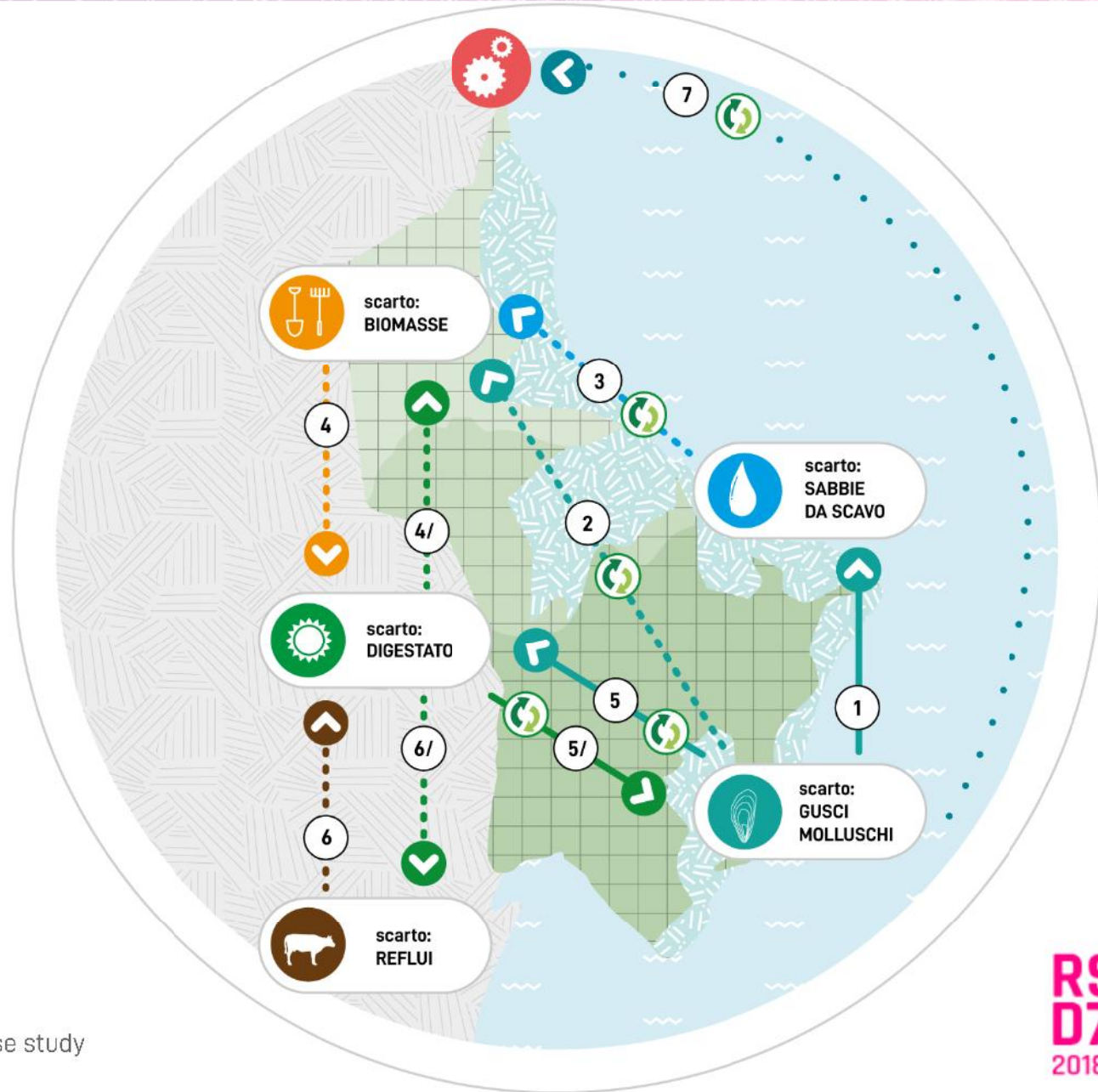
Definition of a new circular economic model (Geographical Systemic Design approach)

Economy


-  Agriculture
-  Farming
-  Green Energy
-  Shellfish Farming
-  Other activities
-  Hydraulic safety

Cycles

-  Short
-  Medium
-  Long
-  UPCYCLING



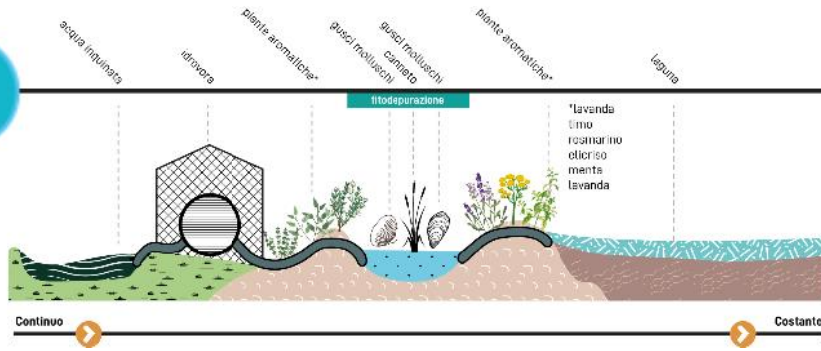
Regeneration Scenarios Map

-  PHYTOREMEDIATION
-  PRODUCTIVE FOREST AREA - A
-  WHITE DUNES STABILIZATION
-  GRAY DUNE RESTORATION
-  PRODUCTIVE FOREST AREA - B
-  PRODUCTIVE FOREST AREA - C
-  ECO-TOURIST FOREST

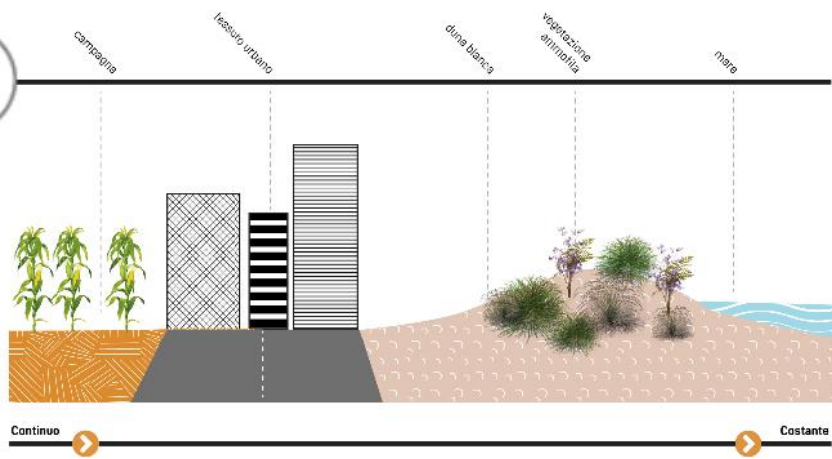


Project proposals (inspired by the Blue Economy)

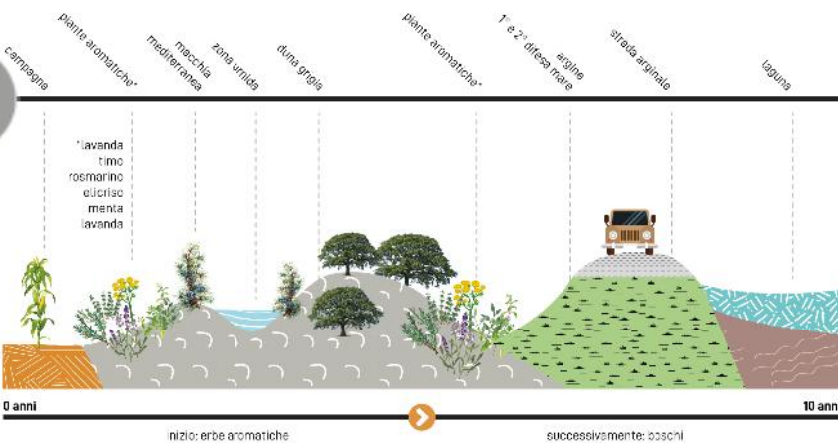
Phytodepuration



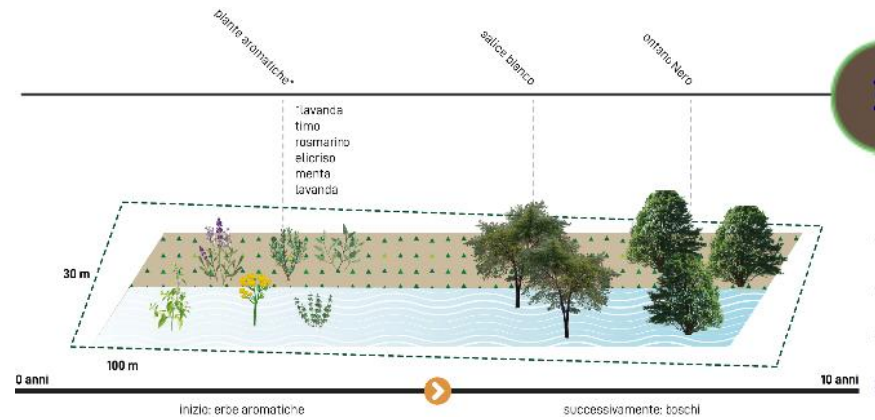
White dunes stabilization



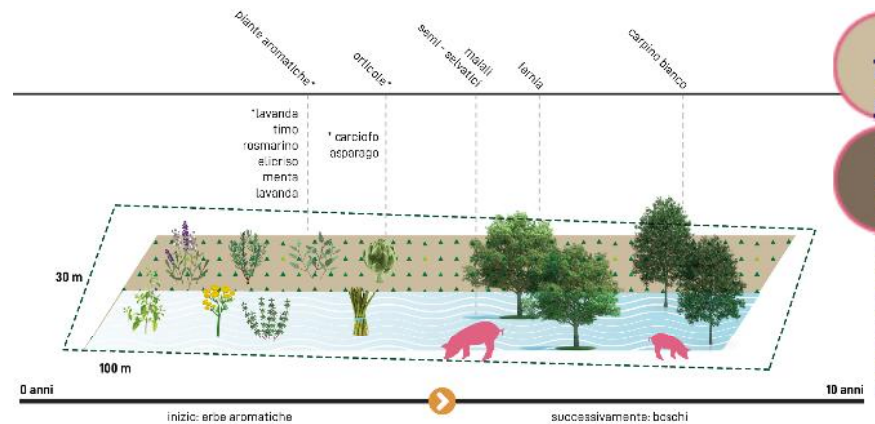
Gray dunes restoration



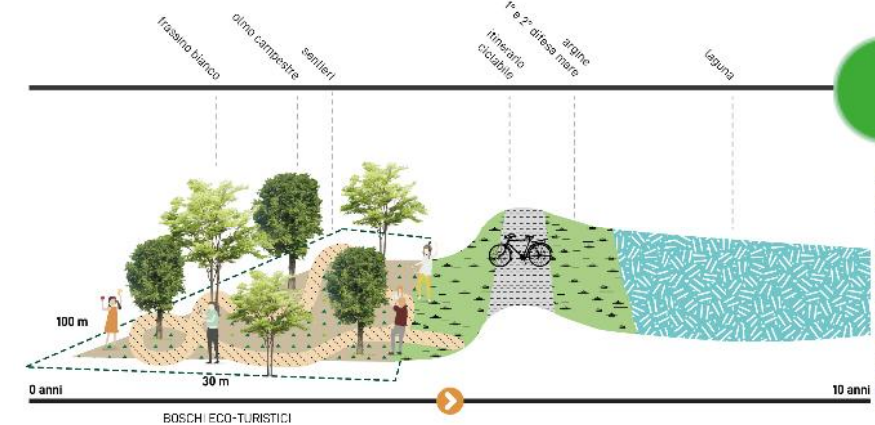
Productive forest are (A)



Productive forest are (B, C)



Eco-tourist forest



Conclusions

- Production of new materials
- New regenerative business models



- Coastal land regeneration
- Increasing the resilience to climate changes and sea rising and erosion

- New green jobs
- Healthy Landscape

**CHALLENGING COMPLEXITY
BY SYSTEMIC DESIGN
TOWARDS SUSTAINABILITY**

**RSD7 - RELATING SYSTEMS THINKING AND DESIGN 7
SYMPOSIUM - TURIN - OCTOBER 24-26 . 2018**



luisa.cattozzo@libero.it