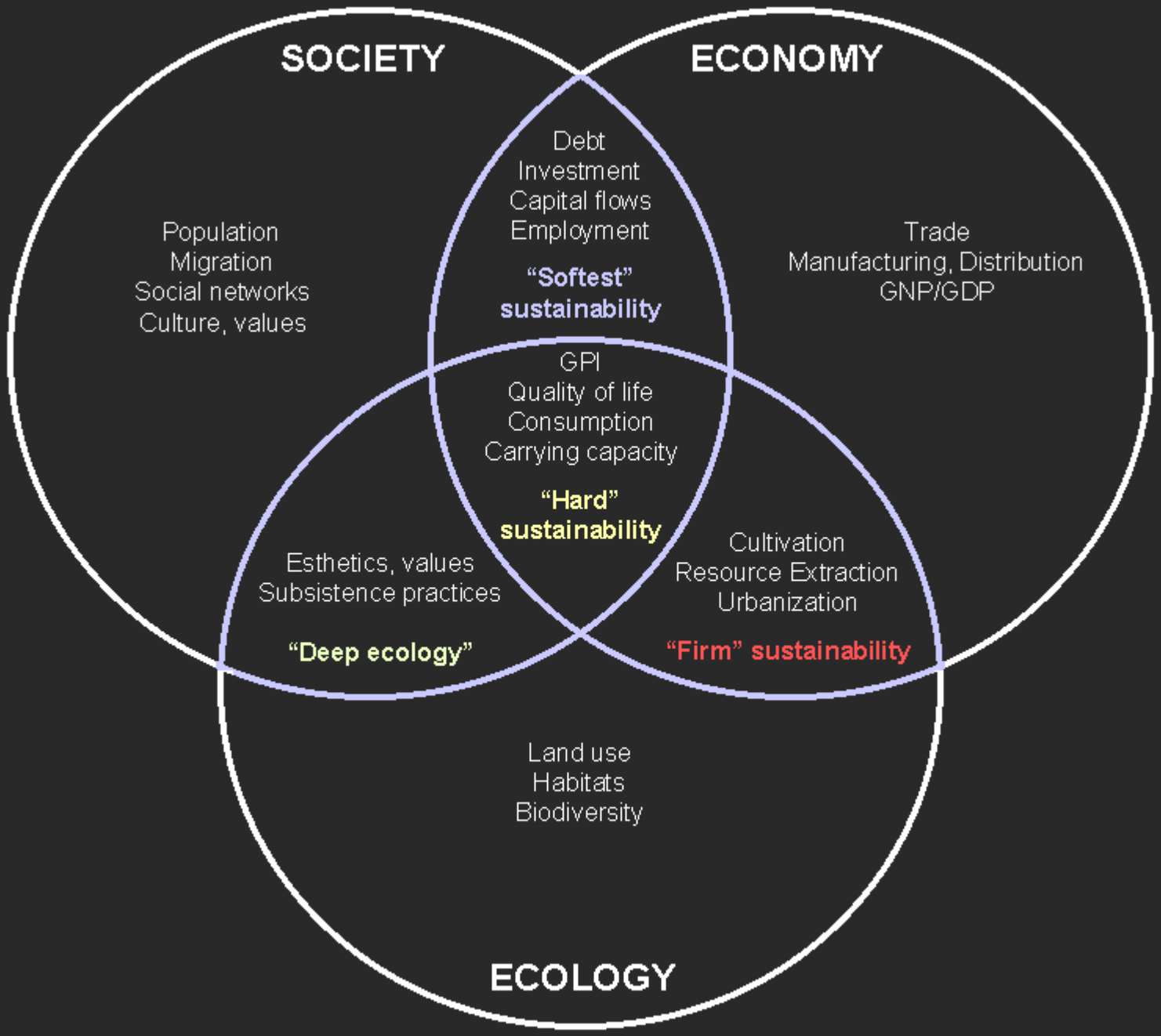
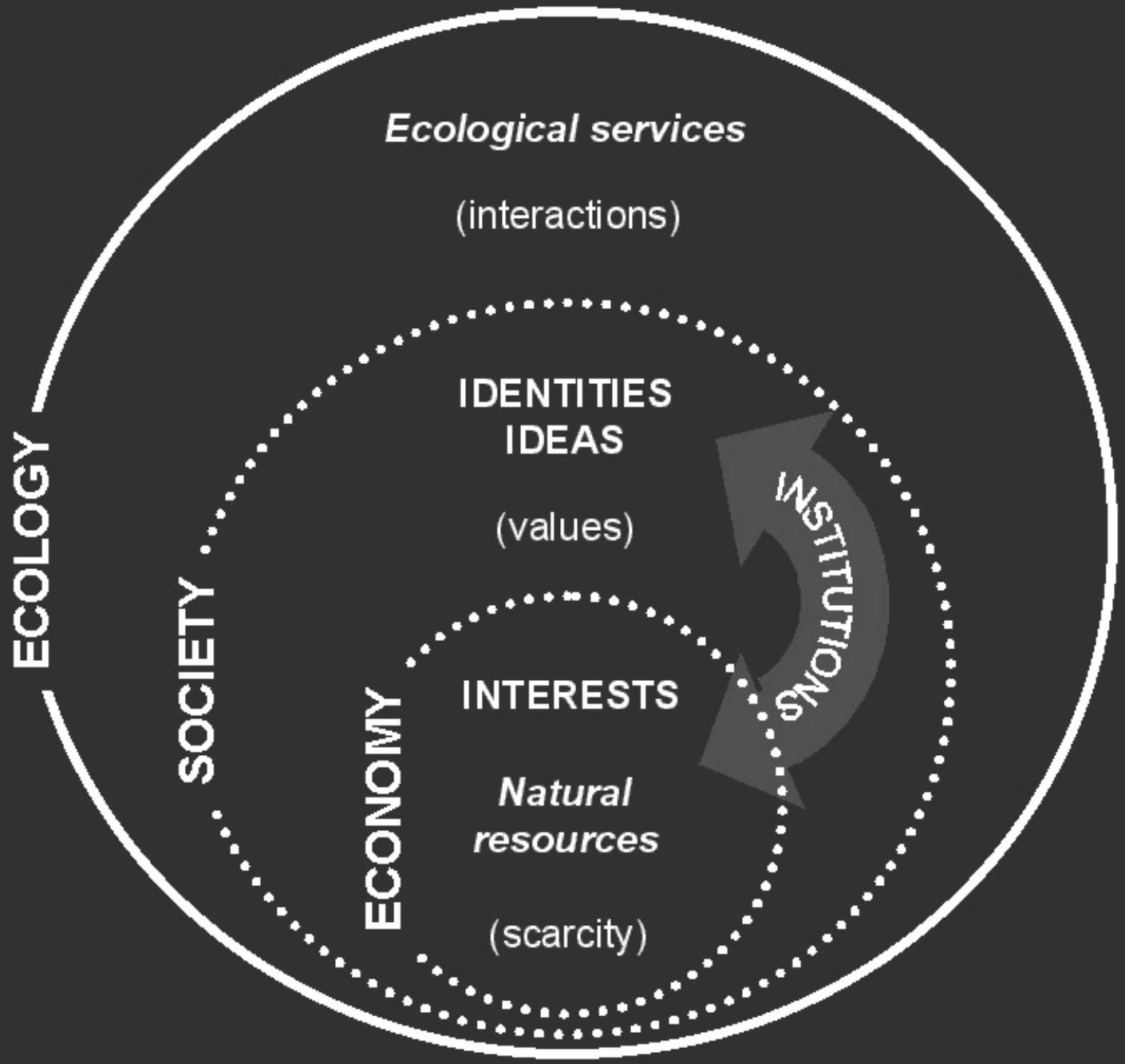
Why Ecological Economics?

"Too often scholars have functioned as if environment, politics, economy, and public values were separate spheres."

John Wennersten
"Chesapeake: An Environmental Biography" (2001)


SOCIETY
ECONOMY
ECOLOGY
Population
Migration
Social networks
Culture, values
Debt
Investment
Capital flows
Employment
"Softest" sustainability
Trade
Manufacturing, Distribution
GNP/GDP
GPI
Quality of life
Consumption
Carrying capacity
"Hard" sustainability
Esthetics, values
Subsistence practices
"Deep ecology"
Cultivation
Resource Extraction
Urbanization
"Firm" sustainability
Land use
Habitats
Biodiversity


ECOLOGY
Ecological services
(interactions)
SOCIETY
IDENTITIES
IDEAS
(values)
INSTITUTIONS
ECONOMY
INTERESTS
Natural
resources
(scarcity)

Scarcity: substitution and replenishment

		CROWDING	MATERIALS	ENERGY
MATERIALS	NON-RENEWABLES		SUBSTITUTION	ARTIFICIAL GOODS
	RENEWABLE RESOURCES		EXTINCTION	
	REPLENISHMENT CAPACITY		(EXTERNALITIES)	
SYSTEMS	ENVIRONMENTAL SERVICES	DEGRADATION		ARTIFICIAL SYSTEMS

Interaction: the importance of boundary integrity

	ORGANISM / SPECIES	MATERIALS	ENERGY
ORGANISM	MICRO-ORGANISMS / IMMUNE SYSTEMS	TOXINS (endocrine systems)	HEATING / COOLING
SPECIES	PREDATION PARASITISM COMPETITION	TOXINS (hormonal cycles)	
ENVIRONMENT	SYSTEM FUNCTIONS (nutrient cycles, soil fertility)	CHANGED MATERIAL AND ENERGY FLOWS (water or air cycling / purification, soil fertility, fecundity)	