

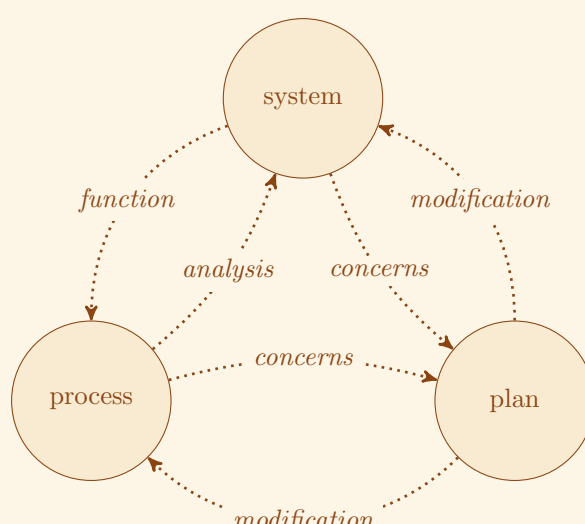
Note

The *essence*<sup>a</sup> or *substance*<sup>b</sup> (ουσία) of reality<sup>c</sup> is captured in three *objects of interest* — system (§ 1), process (§ 2), and plan (§ 3) — which are to be mastered by *the art of efficiency*<sup>TM</sup> (Perdicoulis, 2014c). Objects in Systems Planning<sup>SM</sup> are explicit and realistic mental models of ‘dynamic’ complexity — from δύναμη [Gk], force, denoting that their elements ‘force’ one another (Perdicoulis, 2016b) — that represent complementary viewpoints in planning problems and thus relate among them (Perdicoulis, 2016c).

<sup>a</sup> One or more indispensable properties of an entity — from *esse* [L], to be

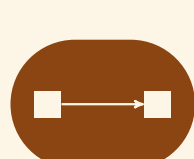
<sup>b</sup> The nature underlying phenomena — from *substare* [L], to underlie/ be the cause or basis of something

<sup>c</sup> Within the scope of Systems Planning<sup>SM</sup> (Perdicoulis, 2014d), *reality* is represented (a) in the conventional classification of professional fields and activities (Perdicoulis, 2016a, 2014f,e) and, more abstractly, (b) in the corresponding *objects of interest*, summarised in this document



*The objects of interest are related by operations and/ or information flows*

## 1 System



The system — e.g. a city, state, or enterprise — is a ‘situation’ (with causal structure and function) that needs to be ‘resolved’ or ‘optimised’.

### 1.1 Description

**CONCEPT** A set of physical or abstract elements in relationships, forming a functional whole

**FORMAL** e.g. city, region, institution

**INFORMAL** e.g. situation

**DIAGRAMS** ‘element–relationship’

**SIGNIFICANCE** The fundamental object of interest in planning — often real and tangible — which is intended to be (and ends up being) built or modified

### 1.2 Approach

**INTENT** Shared understanding (structure, function, and form)

**FOCUS: SYSTEM BLUEPRINT** System elements; relationships; indicators

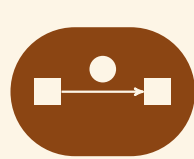
**KEY TASKS** Reverse blueprinting; troubleshooting

**MAIN TECHNIQUE** Reverse blueprints (RBP)

**TYPICAL DELIVERABLES** One or more (descriptive) mental models as reverse blueprints (RBP)

**EXAMPLES** Planning Studio<sup>SM</sup>

## 2 Process



The process — e.g. an operation such as a project — is a representation of the system function in a stepwise manner.

### 2.1 Description

**CONCEPT** A sequence of actions and states, in relation to an end or phenomenon

**FORMAL** e.g. operation, project

**INFORMAL** e.g. activity

**DIAGRAMS** ‘action–state’

**SIGNIFICANCE** An intangible object of interest in planning, referring to *operations* — e.g. the *function* of a system; the *procedure* of a planning project

### 2.2 Approach

**INTENT** Organisation for efficient structure, function, and form

**FOCUS 1: DECISION** Decision-making model

**KEY TASK** Question the decision logic

**MAIN METHOD** Decision model analysis (DMA)

**MAIN TECHNIQUE** Concise process diagrams (CPD)

**FOCUS 2: SEQUENCE** Tasks, techniques, resources

**KEY TASKS** Process profiling; Process enhancement

**MAIN TECHNIQUE** Concise process diagrams (CPD)

**FOCUS 3: TRANSACTIONS** Coupled flows (e.g. money and products/ services)

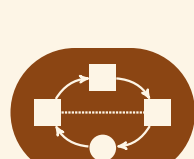
**KEY TASKS** Process profiling; Process enhancement

**MAIN TECHNIQUE** Transaction chain diagrams (TCD)

**TYPICAL DELIVERABLES** Process protocols: mental models (descriptive/ normative) as concise process diagrams (CPD), Gantt charts, workflow diagrams, etc.

**EXAMPLES** Planning Studio<sup>SM</sup>

## 3 Plan



The plan — or policy, or strategy — conveys a justified intent for action (e.g. modifications in the system) in the form of a proposal.

### 3.1 Description

**CONCEPT** A justified proposal for action, with one or more tiers of aggregation

**FORMAL** e.g. plan, policy, strategy

**INFORMAL** e.g. action, measure

**DIAGRAMS** ‘concern–intent–action–outcome’

**SIGNIFICANCE** An intangible object of interest in planning, referring to the *description* of, or the *instruction* for the operation of the system

### 3.2 Approach

**INTENT** Efficient formulation and solution of the planning problem in structure, function, and form (XYZ)

**FOCUS 1: THE COMPLETE PROBLEM** Concerns; objectives; action; outcomes; effectiveness

**KEY TASK** ‘Full’ planning

**MAIN METHOD** Explicative causal thinking (ECT)

**MAIN TECHNIQUE** Descriptive causal diagrams (DCD)

**FOCUS 2: PARTS OF THE PROBLEM** Attention to special aspects:

**KEY TASK** Conceiving strategy (principles-to-action):  $Y \rightarrow Z \rightarrow X$

**KEY TASK** Exploring options (objectives and/ or action):  $Y \rightarrow Y_a; X \rightarrow X_a$

**KEY TASK** Simulation/ forecasting (action-to-outcomes)/ impact tracing:  $X \rightarrow Z' \rightarrow Z''$

**KEY TASK** Impact mitigation (impact-to-action):  $Z'' \rightarrow X_n$

**KEY TASK** Performance evaluation (outcomes vs objectives)/ benchmarking:  $X \rightarrow Z' \rightarrow Z$

**METHODS AND TECHNIQUES** Explicative causal thinking (ECT); ‘XYZ’ problem definition (XPD); qualitative simulation (QSM); descriptive causal diagrams (DCD)

**TYPICAL DELIVERABLES** Mental models (normative, with some descriptive parts) as descriptive causal diagrams (DCD)

**EXAMPLES** Planning Studio<sup>SM</sup>

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