

**D2D CRC Law and Policy Deliverable D.C3.2**

***DC25008: Compliance by Design (CbD) and  
Compliance through Design (CtD).  
Solutions to support automated information  
sharing.***

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## Versions

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DC3.2 vs1	Pompeu Casanovas	Legal Quadrant	August 12 <sup>th</sup> 2018
DC3.2 vs2	Mustafa Hashmi	Databank: Extraction of articles/references, collection of required information	August 12 <sup>th</sup> 2018
DC3.2 vs3	Mustafa Hashmi	Initial analysis of collected resources	September 15 <sup>th</sup>
DC3.2 vs4	Pompeu Casanovas	Clustering of legal concepts	September 15 <sup>th</sup>
DC3.2 vs5	Danuta Mendelson, Louis de Koker, David Watts, Mira Stammers, Jeffrey Barnes, Patrick Keyzer	Refinement of legal concepts and clustering	October 10 <sup>th</sup> 2018
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DC3.2vs11	Pompeu Casanovas and Mustafa Hashmi	Final version	June 24 <sup>th</sup> 2019

## Deliverable D.C3.2

# Survey on Regulatory and Legal Compliance: Legal Quadrant and Conceptual Clustering

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**AUSTRALIAN  
CRIMINAL  
INTELLIGENCE  
COMMISSION**

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## Acronyms

CbD	Compliance by Design
CtD	Compliance through Design
D2D CRC	Data to Decisions Cooperative Research Centre

## Executive Summary

We present in this Deliverable:

- (i) a regulatory quadrant to describe the rule of law;
- (ii) a cluster of concepts to describe instruments and processes of the law;
- (iii) the methodology followed to select the technical papers concerning regulatory compliance; and
- (iv) an initial mapping to frame the selected papers about legal compliance that we will use in our final survey.

The result is a conceptual clustering that is useful to analyse and differentiate compliance by (CbD) and through (CtD) design. This outcome is work in progress: it will evolve as the legal analysis is developed. Preliminary results have been also presented at Casanovas et al (2017), and Hashmi et al. (2018b). A comprehensive explanation of the legal quadrant can be found in Casanovas (2019) (in Poblet et al 2019, chapter 5). A recent survey on business and regulatory compliance can be found at Hashmi et al. (2018a).

## 1 Introduction

The work presented in this document has been produced under Project C, called “Compliance by Design (CbD) and Compliance through Design (CtD) solutions to support automated information sharing”, within the Law and Policy Program, Data to Decisions Cooperative Research Centre (D2D CRC).

This deliverable sets up a cluster of concepts to describe instruments and processes of the law. We started with a quadrant covering the legal concepts deploying the rule of law, before establishing a comprehensive clustering of legal concepts.

We then established a clustering comprising eight sub-sets of concepts. This clustering is required to map and frame the selected papers concerning regulatory compliance coming from the various journals and databases.

All members of the legal team participated in the construction of the cluster and identifying the main concepts within the four sections of the quadrant, namely, hard law, soft law, policies, and ethics.

## 2 Legal Quadrant

We identified four basic components for the societal implementation of the rule of law and the relationship between them: hard law, soft law, policies and ethics. We looked at the sources, domains, and position with respect to citizens (interconnectedness of norms or rules). Rather than discrete categories or lists of requirements, it is a matter of degree and conditions of values and principles, dealing with the pragmatic dimension of the rule of law. I.e. its legal governance.

We viewed the implementation of the rule of law along two different, but related, dimensions at the empirical level: (i) institutional power and (ii) social dialogue (negotiation, compromise, mediation, agreement). Considering the law, regulations, power and how it is handled and eventually shared is important. Even at the micro level, this includes a proportional and gradual system of sanctions. There is a wide range of sanctions, from mere incentives to criminal punishment. But we are looking for some value to be assigned to them according to the degree of ‘bindingness’ of norms and the acceptance by stakeholders.

The intuitive approach to first separate binding from non-binding norms according to the nature of the objectives and procedures has been employed by many previous descriptions. For instance, Brous, Janssen and Vilminko-Heikkinen (2016), Mondorf and Wimmer (2016), and the EU Better Regulations scheme for interoperability (TOGAF, 2017, 39: Legal View).

Figure 1 below plots our regulatory quadrant for the rule of law. The validity of norms (i.e. their ‘legality’) emerges from four different types of regulatory frames,



with some distinctive properties. Properties are understood here as correlating dynamic patterns.

This is a preliminary scheme, *a conceptual compass* to be used for a first clustering of norms, according to their type and degree of compliance: *abidance* (for hard law), *conformance* (for policies), *accordance* (for soft law), and *congruence* (or congruity) for ethics. According to the degree of abstraction at the implementation level, these four categories can be blurred into overlapping concepts. For example, agreements can be understood as mandatory in the case of corporate policies that may be more binding in practice than some statutes.

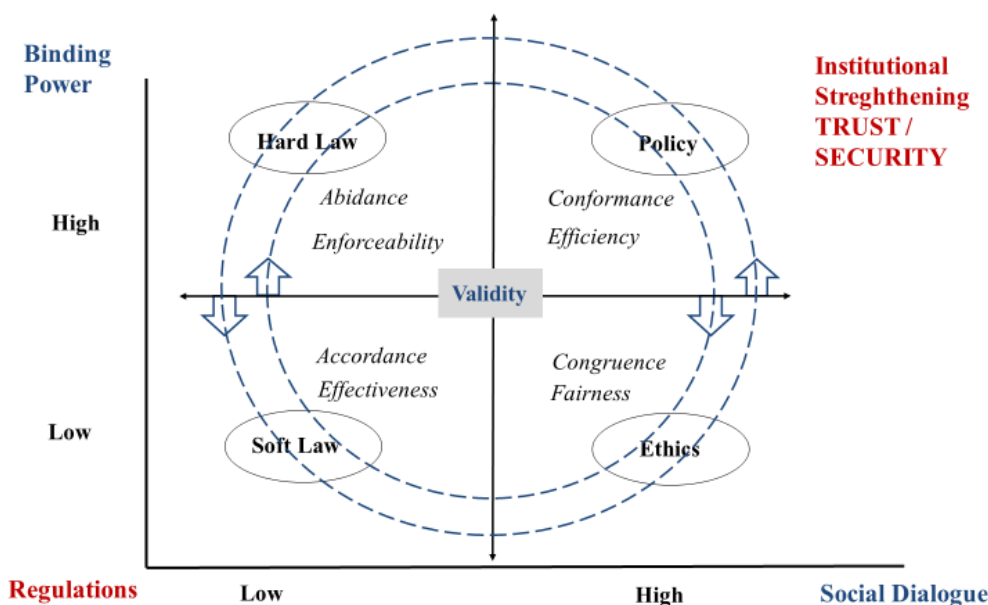


Fig. 1 Legal quadrant for the rule of law

Hard law refers to legally binding obligations, either in the national or international arena, under regulations that can lead to adjudication by court processes. Soft law, on the contrary, is not mandatory. It consists of rules, best practices and principles that are not legally binding, but instead facilitate the governance of networks, social organisations, companies and institutions, leaving room for dialogue, negotiation and common accord among relevant actors. Soft and hard law are not discrete categories but are placed on a continuum which allows the coordination of different powers and authorities to produce what is global law —regulations across borders among citizens, organisations, and the different states.

## 3 Phases

### 3.1 Phase-1: Data collection

#### Key Terms

- "law enforcement", "legal effectiveness", "legal efficacy", "legal implementation", "legal enactment" "compliance", "law enforcement", "degrees of "enforcement" or types of enactment of "norms"
- These terms were then combined using boolean operators to construct the key search terms such as: compliance AND (management" AND frameworks"), compliance AND (formal" AND methods"), compliance OR ("techniques" OR "methods" OR "approaches"). The list of key search terms extracted about the information domain as follows:

- compliance frameworks: compliance management frameworks, business process compliance management, formal compliance
- compliance strategies: design-time compliance, run-time compliance, auditing compliance, compliance by design.
- process life-cycle aspects: data-aware, resource-aware compliance, control-flow verification
- compliance approaches: semantics and ontology compliance management,
- pattern-based, graph, policy-driven compliance

- the use of quasi-synonymously terms forming the concepts such as conformance" is used for compliance", backward compliance" for auditing" and retrospective compliance" for design-time compliance", "legal norms" for compliance requirements etc.

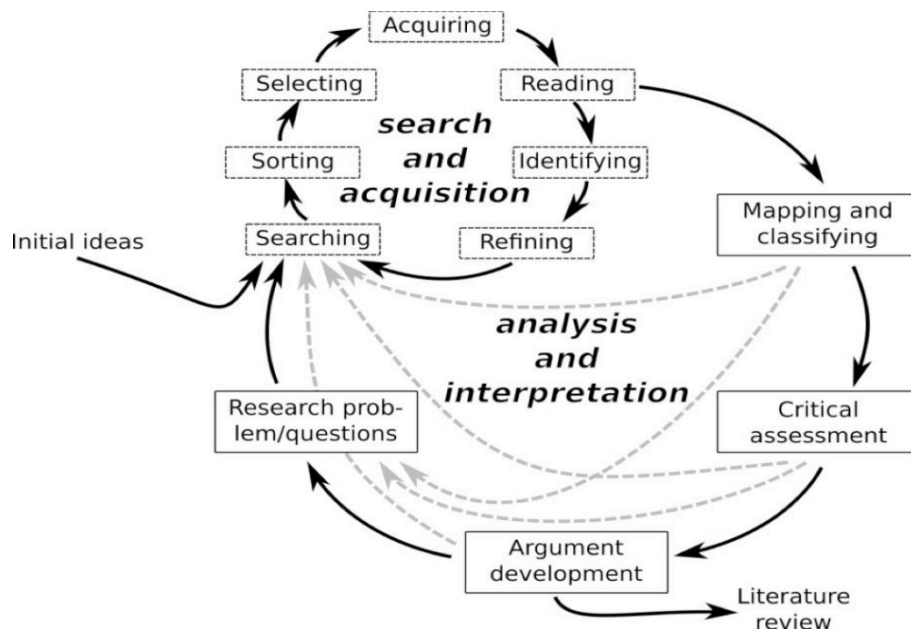
- The use of proximity and logical operators to combine the key terms/concepts

#### Search Engines

- SpringerLink, ScienceDirect, ACM Digital Library, Web of Science, EbscoHost, IEEEExplore, Free Search Database DBLP. Referring to legal compliance: Westlaw International, Lexis Nexis, Heinonline, AustLII.

#### Methodology

We loosely followed the hermeneutic circle methodology depicted in Fig. 1. We used it as a starting point, but the two phases (search and acquisition, analysis and interpretation) were followed at the same time, as one reinforced the other, and more findings fostered new analyses that helped to refine the search.



**Figure 2.** Hermeneutic Circle —adopted from Boell, S.K. and D. Cecez-Kecmanovic. (2010)

### 3.2 Phase-2: Data Synthesis and Analysis

- Coding approach
  - Contents analysis approach (use to identify key terms, concepts, themes etc)
  - Relations analysis approach (use to examine the relationship between the key terms, concepts, themes etc.)
- Evidence Assessment
  - study selection (i.e., inclusion) criteria
  - study rejection (i.e., exclusion) criteria
  - quality assessment criteria
- Evaluation Criteria / framework
  - we haven't discussed about the evaluation criteria
- Literature Clustering
  - Clustering will be based evaluation criteria

### 3.3 Phase-3: Results reporting

- dissemination of the results

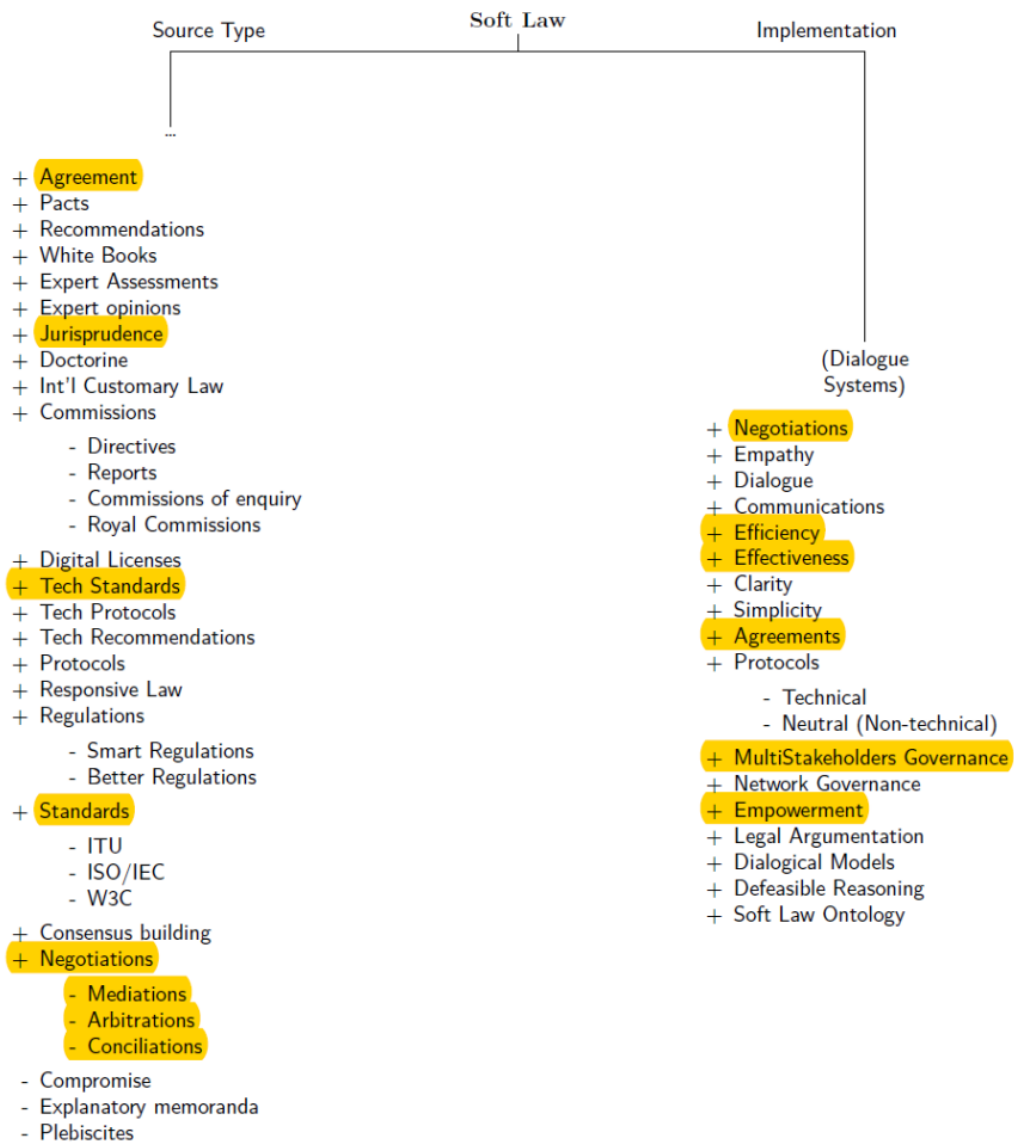


## 5 Outcome: Clustering of legal concepts (sections)

### 5.1 Hard Law



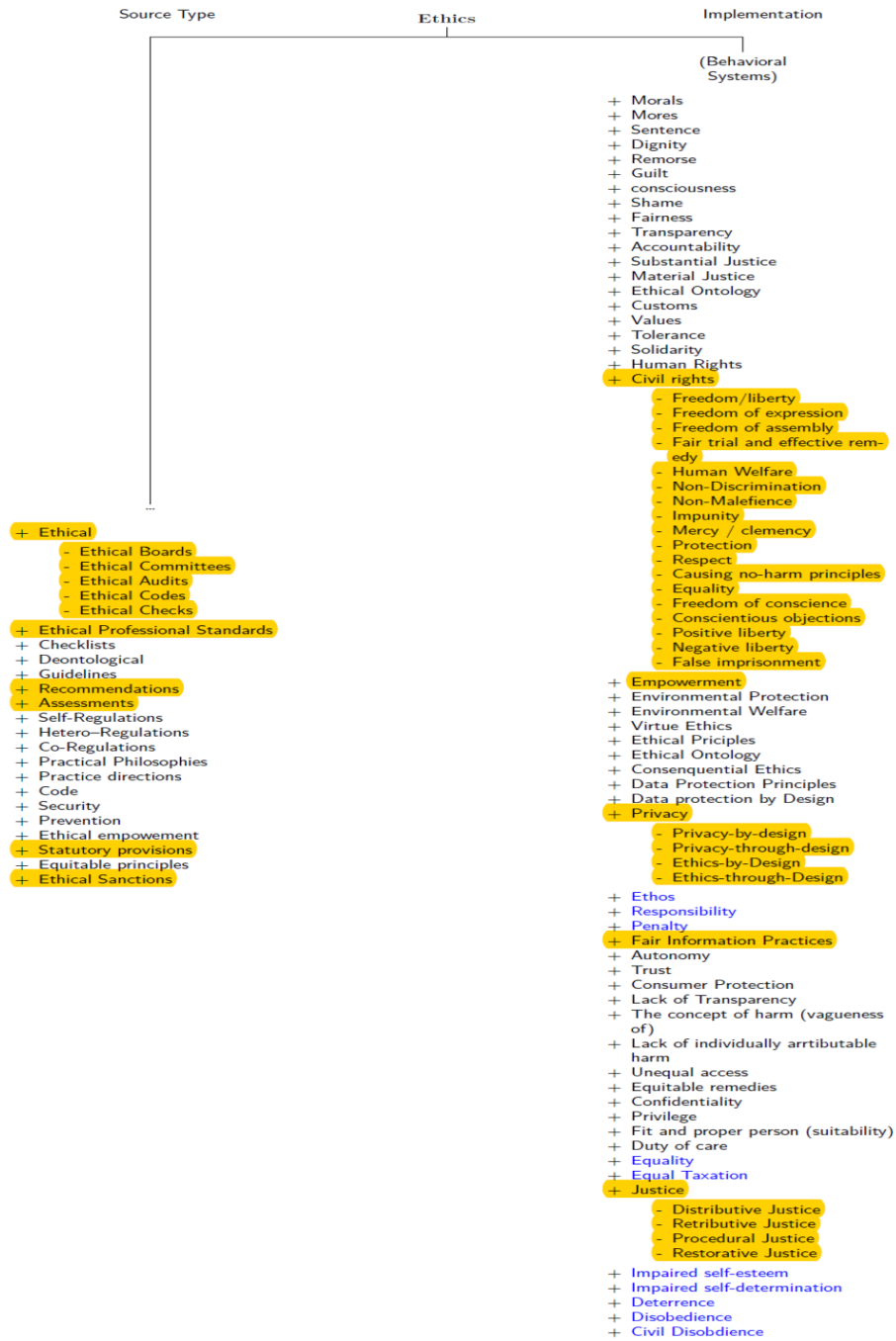
## 5.2 Soft Law



## 5.3 Policies



## 5.4 Ethics





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