

COMPULAW

Computable Law

<http://site.unibo.it/compulaw>

Overview of Subproject 3

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European Research Council
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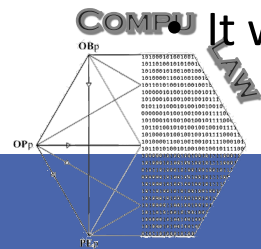
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January 27th, 2020
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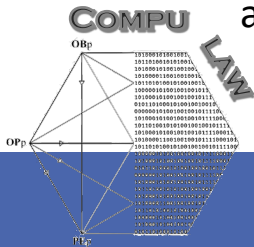
Subproject 3: A techno-legal approach to computable law

- Subproject 3 finalises a **framework for the creation, and implementation of computable laws**, to be complied with by ALAs having different degrees of autonomy and cognitive capacity.
- The proposed framework includes methodologies, technologies and substantive suggestions, to combine: 1) norms governing human behaviour; 2) norms specifying functional requirements of computational systems, directed at designers and deployers; 3) norms directed at computational entities.
- Special emphasis on communication and **argumentation**, namely, on the ways in which (intelligent) systems should explain their choices, demonstrating compliance with the applicable norms.
- It will deliver (1) a **methodological toolkit**; (2) a set of **substantive guidelines**.



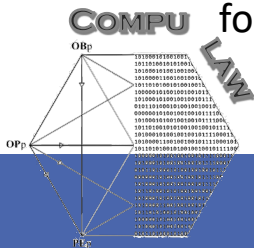
1. Methodological toolkit

- The **methodological toolkit** will suggest how the issues identified in the Subproject 1 can be addressed, with the methods and techniques identified in Subproject 2. It will include:
 - (a) **ways to translate legal requirements into computational standards**, including computable legal rules and principles;
 - (b) **architectures for ALAs**, conditions and methods for legitimate, effective and safe delegation of compliance and enforcement to ALAs;
 - (c) **methods to verify** the correctness of computable norms and to simulate/anticipate social outcomes of norm-governed interactions involving ALAs;
 - (d) **protocols** for dialectical interactions between humans and ALAs and between ALAs;
 - (e) **argumentation schemes** through which ALAs can explain and demonstrate compliance with the applicable norms;
 - (f) **methods to assess and explain** the behaviour of machine-learning systems
 - (g) **institutional arrangements** to deliver computational norms to certified ALAs, involving public agencies and/or the initiatives of designers/deployers/users, supported by private standards.

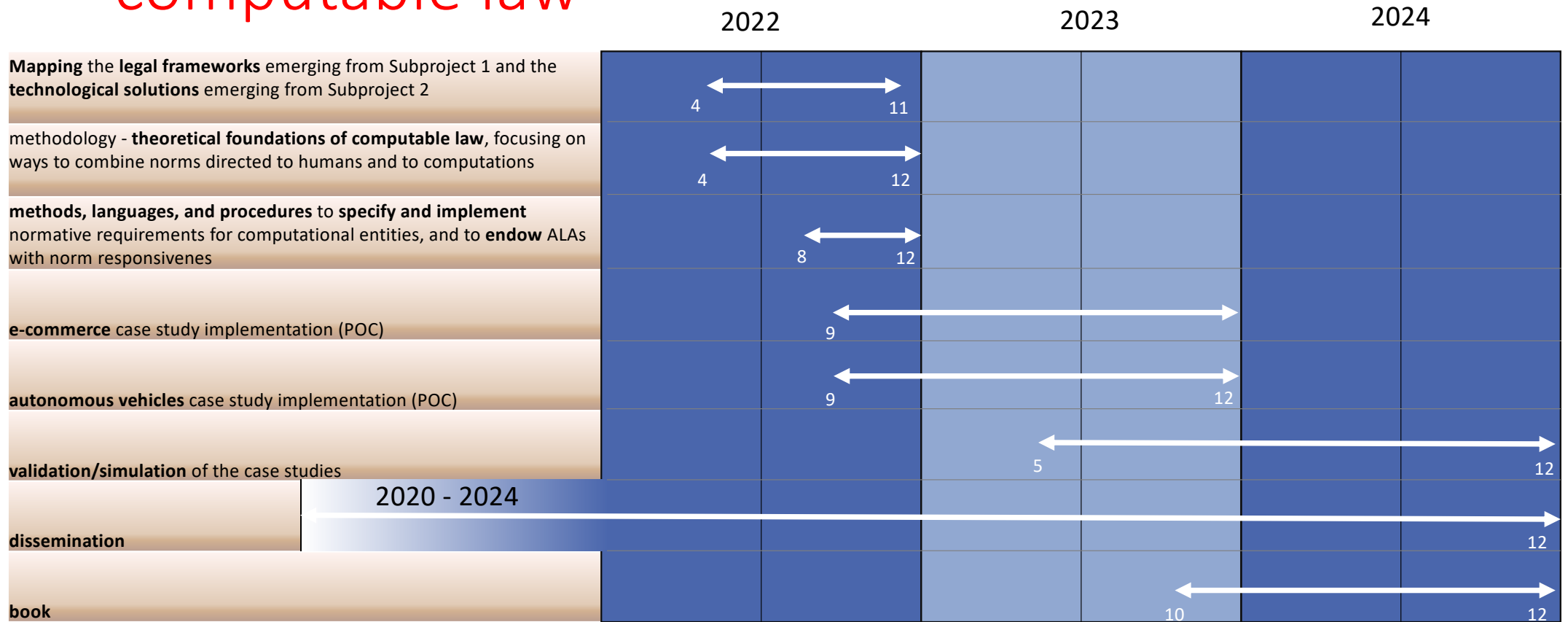


2. Substantive guidelines

- The **substantive guidelines** will propose hybrid regulatory frameworks (covering selected domains, including the two cases studies) to govern the creation and implementation of computable law, to preserve and enhance the rule of law and ensure respect of fundamental rights and principles. They will address all of the following:
 - (a) **obligations** of users, owners, and designers/producers of ALAs;
 - (b) **standards for designing** ALAs;
 - (c) ways to **delegate** (more or less openly) **tasks** and responsibilities to computations;
 - (d) **obligations** to which intelligent computation should respond;
 - (e) **normative powers** of intelligent computations (conditions for the validity of contracts and legal acts accomplished by them);
 - (f) **civil and criminal liabilities** of designers/producers for the harm caused by computational entities acting under their choice, influence or control;
 - (g) **conditions for correct and friendly human-machine interaction** in the hybrid infosphere (e.g., respect for privacy and data protection, non-discrimination, and transparency).



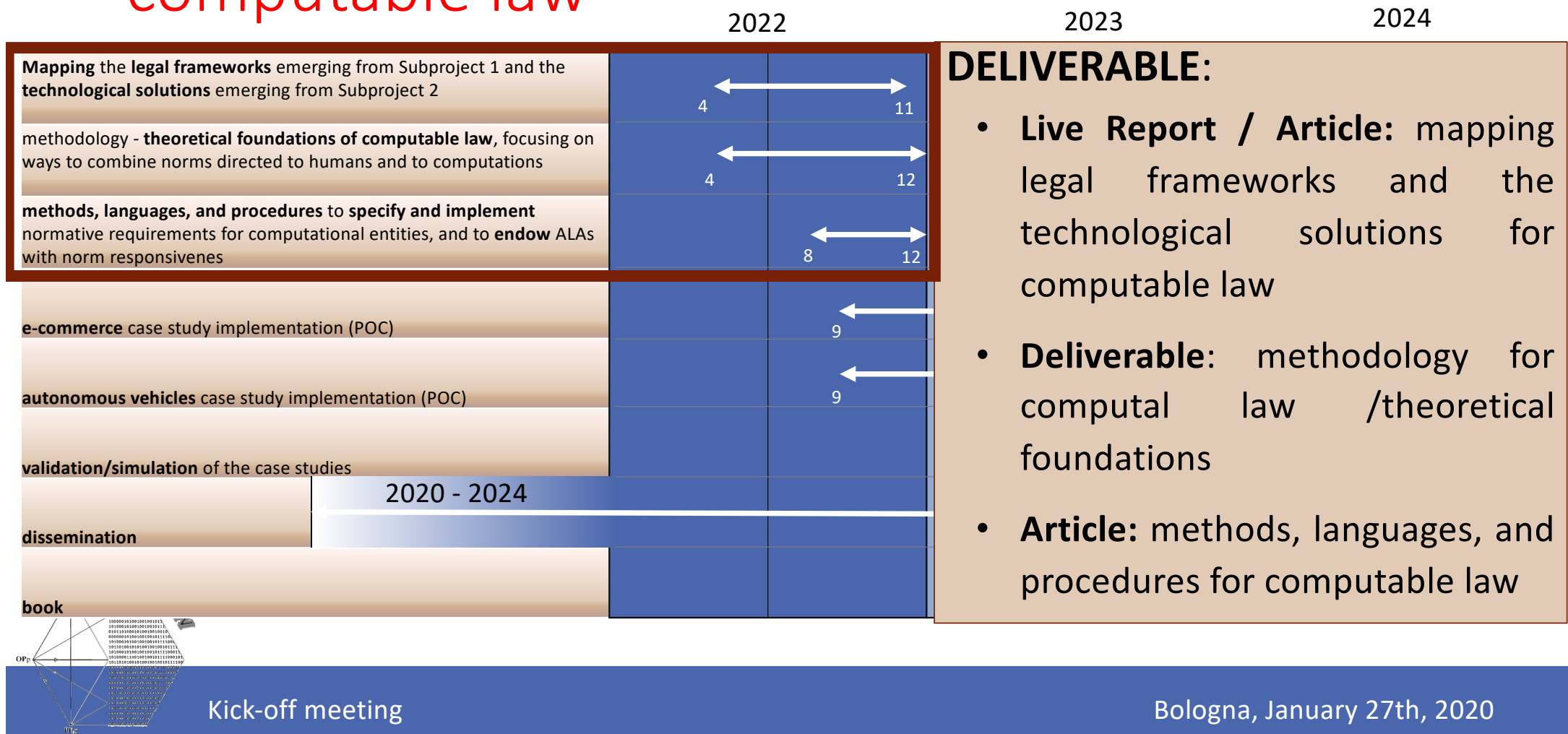
Subproject 3: A techno-legal approach to computable law



Kick-off meeting

Bologna, January 27th, 2020

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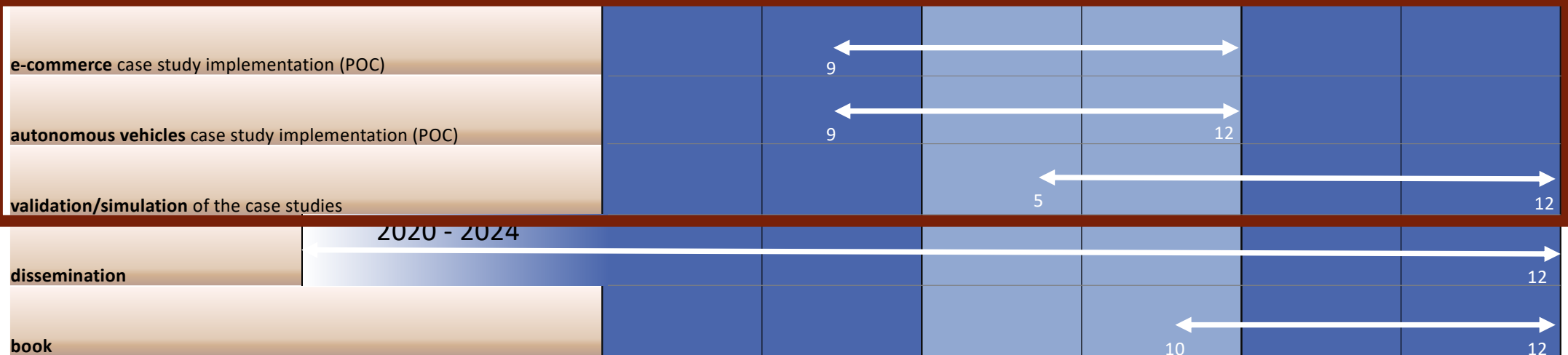
2022

2023

2024

DELIVERABLE:

- Tools / POCs (for the case studies)
- Report: validation of case studies
- **Simulator(s)** to verify intended effects and anticipate unintended effects of regulations



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Subproject 3: A techno-legal approach to computable law

2022

2023

2024

Mapping the legal frameworks emerging from Subproject 1 and the technological solutions emerging from Subproject 2

methodology - **theoretical foundations of computable law**, focusing on ways to combine norms directed to humans and to computations

methods, languages, and procedures to specify and implement normative requirements for computational entities, and to **endow** ALAs with norm responsiveness

e-commerce case study implementation (POC)

autonomous transportation case study implementation (POC)

DELIVERABLE:

- **Web site / social**
- **Book: Computable Law – governance of the hybrid infosphere**

2020 - 2024

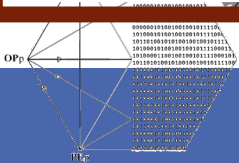
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book

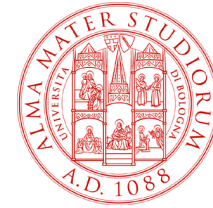
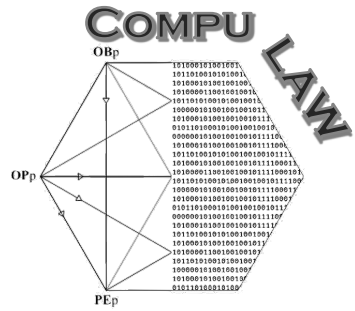
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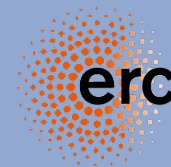


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