Introduction

It's remarkable to see frequent newspaper headlines about the undesired effects of all kinds of public regulations, while, at the same time, nobody seems to question the process of designing the legislation and rules that shape regulation. Blanc (2018) states that the theoretical impossibility of designing optimal rules is validated by experience. A closer look at how regulations are generated confirms his observation. Rule-making seems to be a kind of trial-and-error process with many unintended effects. Some of these effects appear foreseeable through common sense, for example when medical specialists find loopholes in the rules for limiting their income. But, in a good number of cases, undesired effects are very hard to anticipate.

Looking more closely at the way legislation is designed, it is remarkable that lawmaking process seem to be mainly linear and sequential. If this is really the case, this raises the question whether lawmaking processes as designed and institutionalized are suitable for delivering legislation that fits today's dynamic and complex society. As academic work with regard to innovation and complexity demonstrates, linear sequential processes are not suitable for dynamic and complex target fields. Ruhl (1997) argues that top-down legal systems contrast problematically with the social and natural systems they seeks to regulate. The tendency to react hastily to societal pressures following incidents with new regulations can also generate flawed legislation. Needless to say that a well-functioning public legal system is essential for facilitating innovation, in general, and for mainstreaming sustainable business, in particular.

Public supervision

Confronted with poorly-designed and, thus, relatively ineffective legislation in a fast-changing and complex society, public supervisors are experiencing more and more problems. On the one hand, their mandate is based on the letter of the law. On the other, society is holding them accountable for incidents and crises. Moreover, many public supervisors are struggling with budget cuts that limit their capacity. Public supervisors are therefore facing not much less than a "mission impossible" in safeguarding public values, such as safety and environmental protection.
Supervisors try to cope with this challenge in different ways. Some public supervisors take a formal stand, and just stick to the formal task of checking only whether companies comply with the law. However, this strategy is risky. Societal and political critics blame them when things go wrong, as supervisors in the financial sector have experiences after the financial crisis. Other supervisors go beyond their formal mandate and focus on the actual effects in society, rather than on regulatory compliance (Kasdorp, 2016). This strategy also comes with risks, as the legitimacy of their expanded mandate is weak and the intervention options are limited.

One popular form for addressing actual effects is meta- or system-based supervision. The supervisor seeks assurances for safeguarding public values, such as safety and environmental protection, from the regulated company itself. This approach locates the primary guarantee for the protection of public values in the regulated organization’s management system and culture. The intensity of traditional inspection can then be based on the level of assurance the regulated company is generating. Research in healthcare demonstrates that this approach offers the inspectorate the tools to identify any weak spots in those assurances (Bree & Stoopendaal, 2018). Furthermore, this approach can stimulate the regulated organization to spontaneously fix their weaknesses when confronted with the findings.

Notwithstanding these coping strategies, more ineffective laws keep being generated. Therefore, public supervisors are also starting to express their concerns about the quality of laws to policymakers and politicians.

**Lawmaking**

If it is true that processes of lawmaking are not suitable for today’s dynamic and complex societies, the root cause of the problem is likely to be found in how the basic principles of a legal system relate to today’s complex, dynamic, globalized, and networked society.

Maybe lawmakers can be inspired by companies with regard to the use of rules. Hale and Borys (2013) propose two ways to work with rules. One is the top-down approach, in which rules are imposed on the regulated parties and compliance with the rule is required. This way of using rules is suitable for predictable and relatively simple and static situations. The other approach they identify is based on co-creation. Rules are made in the course of operations and can change, depending on developments occurring during the operation. This is a more flexible use of rules, suitable for dynamic and complex situations. This flexible use of rules has been recognized as very effective in the field of safety management, where professionals are less constrained by top-down procedures and have the
freedom to improvise in unforeseen situations (Dekker 2014).
In light of this, it seems plausible to posit that a traditional top-down, linear process of making and imposing rules is not very suitable for a dynamic, complex society. Complex systems ask for more complex and dynamic regulatory processes which engage all relevant knowledge and factoring all the interests of those involved. Also, these new processes should make use of existing non-governmental potential for assurance and self-regulation.
Although the raw design principles may be easy to imagine, and early attempts have been made to experiment with co-creation of legislation, changing these processes would require fundamental choices. Before we can even start discussing this, substantial scholarly and practical work has to be done. Businesses may have an opportunity to engage in public regulation processes and pro-actively propose the ways that their self-regulating capacity could contribute to the realization of UN’s Sustainable Development Goals. Public actors most likely will have to realize that the traditional top-down approach to making and imposing laws will be seriously and fundamentally questioned.

**Resuming**
It seems fair to conclude that a reinvention of our legal systems is needed, facing a world that is even more dynamic, complex, and networked than before. The way laws and regulations are designed and used should probably be adjusted dramatically. Laws may even become obsolete as dominant conceptions or as a means for realizing societal goals and replaced by conceptions more suitable for today’s networked world. How can we develop new discourses and paradigms to help us transform existing legal systems into systems which are better designed to learn and to co-create?
Most of the answers are still unknown, but a promising approach seems to be to base government-governance interactions on multi-disciplinary inclusive approaches, building upon academic work in fields like design, innovation, complexity, and ethics. This opens doors to largely unexplored areas of research in the interface between several disciplines, both in the practical and the academic realm.