



Codes of Conduct (CoC) are – like observatories – an important element in the toolbox of ‘soft’ regulation; they are also sometimes called ‘ethical codes’ or ‘codes of good practice’ with focus on the behavior of individuals or groups.

A CoC basically consists of a set of rules that express the responsibilities and proper practices of an individual or an organization; it defines moral and ethical standards of behavior inside a group, towards other societal actors or towards other ‘entities’ like the environment, animals or ‘nature’ as such.

As it is rule-based, a CoC formulates ethical standards and guidelines (see also Ethics and Morality) that can (and must) be subject to scrutiny and to dissent. It is (to a certain extent) framed and formed by values of the culture(s) it is developed in: it may reflect the *morale* of a certain community.

The rules formulated in a CoC may vary depending on the purpose and the group that is bound by it. In any case these rules can be traced back to different basic principles that play a major role in many ethical theories. In bioethics or medical ethics, for example, you can often find the principles of respect for autonomy (of a person), beneficence (doing good), non-maleficence (not doing harm) and justice. And these principles should be the guideline in, for example, any doctor-patient relationship.

It has become clear that the rules defined in such codes are rather abstract as they are meant to cover a wide range of general practices; they are therefore no detailed set of laws and cannot be enforced like laws. They are voluntary and anyone – individual or organization – subscribes to a code voluntarily.



In the context of nanotechnologies and other emerging technologies, codes of conduct are adopted and proposed by companies like BASF and authorities like the European Commission for mainly one reason: It is not possible to make detailed laws

and regulations based thereupon because the necessary scientific data concerning, for example, the toxicity of nanoparticles is not available, and it is not clear when or whether it will be available. This situation produces a lot of uncertainty which regulating bodies are not prepared to deal with.

Therefore codes are seen as a means to set up some ‘soft’ laws that are difficult if not impossible to enforce but provide a precautionary frame that allows proceeding in research, development and on the market, avoiding a moratorium on nanotechnological developments.



One example of a code that was developed with participation of industries is the *Responsible NanoCode* (Royal Society, Insight Investment and Nanotechnology Industries Association) that defines seven principles subscribers must adhere to, among them high standards for public health, worker safety, environmental risks, transparency and disclosure etc. Another example is the BASF code that defines e.g. the protection of human life and the environment, contributions to drawing up legislation, refinement of assessment of potential risks, information for customers and partners, etc. as basic principles – not refraining from statements on the impossibility of artificial organisms and nanobots. These codes address individual companies or industries associations concerning research in their labs and *putting products on the market*.

An example for a code initiated and drafted by an authority is the code of conduct by the European Commission. It is also voluntary but addresses mainly *research*. It also formulates seven basic principles which are meaning (comprehensible to the public), sustainability, precaution, inclusiveness (transparency), excellence, innovation and accountability. It is worth noting that it includes an abstract and internationally contested principle like precaution, but then also includes ‘innovation’ as a basic principle in



☞ an ethical code.

There are other codes or proposals for codes but it has already become clear that there is a variety of possible codes concerning the questions: who drafts it, who subscribes to it, and what is the focus (research, market, etc.).

∞

(Not only) from an ethical point of view there arise some questions concerning codes of conduct:

1. If there are many different codes of conduct, how will we prevent everybody from making their own code – which would be as good as having none at all. Who guarantees transparency? Who would prevent big companies from establishing a club via a code of conduct that places small enterprises at a disadvantage?

2. What about the enforceability of such a code? Since codes of conduct are voluntary – are being in the pillory and loss of credit in the public as punishment for non-compliance enough to ensure compliance? This question is especially pressing since codes are considered a means of filling the void of not (yet?) existing laws.

3. There are different models of codes. Codes e.g. drafted and adopted only by a single company raise the question if a company monitoring its own compliance to its own code is enough? Other models offer the possibility of different organizations subscribing to a co-authored code or to a code drafted by a third party. Here the critical question is how effectively the monitoring organization really can control compliance and punish mis-

conduct.

4. Who ensures that codes of conduct, introduced as temporary solution or as tools merely complementing law-based regulation, will not become a *status quo* and hinder development of regulation?

5. Many people think that codes are a means to get by until missing scientific data will be there. Shouldn't there also be more general thoughts on what to do if this takes a very long time; thoughts on how to ensure that nanotechnologies are responsibly embedded in society?

6. How about what classical regulation has to offer: political transparency, legal certainty, public oversight, accountability (see ☞ 'Soft' Regulation). How could these principles be 'saved' in the confusing landscape of codes of conduct?

∞

**Q:** Well – if they can find rules and principles to make a code of conduct, why don't they make a law? **A:** An abstract ethical principle can be used to evaluate the behaviour of somebody and to recommend proper conduct, but it cannot replace detailed law that opens the possibility for sanctions and thus grants stability.

✦

STEFAN GAMMEL

---

## ☞ Links to other Portfolio sheets:

- ☞ Ethics and Morality
- ☞ Observatory
- ☞ 'Soft' Regulation
- ☞ Regulation
- ☞ Disentangling Nano

## ☉ Literature: Print & WWW

NIA et al.: Responsible Nano Code [<http://www.responsiblenanocode.org/>]

European Commission: Code of conduct for responsible nanosciences and nanotechnologies research [[http://ec.europa.eu/nanotechnology/pdf/nanocode-rec\\_pe0894c\\_en.pdf](http://ec.europa.eu/nanotechnology/pdf/nanocode-rec_pe0894c_en.pdf)]

BASF: Code of Conduct Nanotechnology

[<http://www.basf.com/group/corporate/en/content/sustainability/dialogue/in-dialogue-with-politics/nanotechnology/code-of-conduct>]