

# Michael Kopatz

## Ecoroutine: change structures instead of people

### Abstract

With climate protection things are much like a diet: The first few pounds are easily lost before it gets difficult. Every citizen in Germany currently emits ten tons of carbon dioxide per year in average. We are still far away from the goal of „1.5 tons per citizen per year“ and it is becoming more difficult. Managers and engineers have mostly lifted the low hanging potentials in efficiency. For a few years already, the CO<sub>2</sub>-level has been stagnating. Whereas the total use of resources could, despite all efforts, not be lowered at all. It is becoming more and more clear that a responsible handling of planetary resources will not work by means of technical innovations alone. A socio-cultural change is required likewise. Therefore, to create the political framework defines the focus of a concept named »Ecoroutine: change structures, instead of people«.

In many areas, ecoroutine works without using any words: Separation of waste, energy-saving lamps, efficient refrigerators, washing machines and vacuum cleaners. All of these have become normal. Everyday routines shape our daily life and we unknowingly profit from numerous rules and standards: Printing paper, plugs and drinking water. The German Purity Law for beer enjoys an international reputation.

Ecoroutine picks up this logic, creates structures offering opportunities and self-employs the change towards sustainability. Turning point of the ecoroutine are concrete and simple political tools. All refers to schedules in form of limits and standards, such as for the weight and the carbon emissions of vehicles. It is about speed, parking, road construction, airports, pesticides, fertilizers, livestock, coal power, packaging, warranty periods, durability, reparability, financial transactions, and much more.

»Ecoroutine« gives innovative proposals for action. They are concrete, practical and most are amazingly simple. Many tools are aimed at providers of products and services, others at consumers. They institutionally anchor the mindful/responsible use of resources. They make eco possible for everyone.

### The will is there ...

The citizens in Europe wish a sustainable life: 95 percent consider environment protection to be important. Alone, it is difficult for us to do what we believe to be right. Common goods like rivers, oceans, fishing grounds, woods, grassland, air or raw materials are consumed and destroyed by the people even if the individual doesn't intend it. There are merely few who are indifferent to the life of future generations. In most cases, the people wish to contribute to prevent the extinction of species and sea-level rise. We are of good will, without doubt. However, who will restrict itself if the neighbours, even the whole world don't change anything. Everybody wants to be a part of the whole. With regard to this objective disadvantage it seems to be rational not to leave one's car. But with such a rational behaviour by the individual, i.e. to go by car, to eat tons of meat and to travel by aeroplane, the destruction of the fundamentals of life takes its course. In their individual efforts for rational behaviour the people create a collective irrational and undesirable result. This knowledge is really not new and has been described multiple times by economists, psychologists and sociologists.

### Schizophrenia

Additionally, people are true artists in ignoring facts and, instead, living with opposites: They love their dogs but buy cheap meat. They fear the global warming but take the jeep to the

baker. They install energy-saving lamps but buy a laundry dryer. They build energy-efficient houses, which are too big. In politics it is not better. Often the same politicians support at the same time the extension of climate protection and the expansion of airports and roads. Moral appeals to environment protection will hardly help to overcome the lived schizophrenia. Instead, ecoroutine intends to change the given structures. Thus, a respectful behaviour may become self-sufficient. Ecoroutine creates structures offering opportunities.

## Routines

Routine describes a procedure which is not reflected on, which has not to be reflected on anymore. This makes routines useful. They relieve and allow us to concentrate on what needs a conscious decision. In another way the daily routine could not be managed. Each car driver steers his car without planning each single move. Even a simple changing of lanes is linked with a considerable coordination effort: Clutching, shifting, blinking, shoulder glancing, steering, speed controlling, all these moves have become routine which happen automatically – and provide room for talking to passengers or listening to radio plays. Simultaneously, these routines are established in structures like the traffic regulations which have to be followed by all road users.

In the early 1980s it was a routine not to fasten a seat belt for driving a car. Although police and media continually pointed out how dangerous is the driving without seat belt and despite of photos with accident victims not wearing a seat belt and urgent recommendations to wear a seat belt, merely a small part of the population questioned its routines and changed them accordingly. The »impulse« triggered by information campaigns was obviously not strong enough.

It is well known that the climate change endangers the existence of billions. No one will say: »Oops, it is the first time I have heard about it!« In media we are reminded to change our behaviour and to use less resources. We don't do what we consider the best, since the information received does not change our routines.

This can also be explained from a neurologic point of view: Routines are firmly established in our brains. For the learning of new capabilities and behavioural patterns at first the cerebral cortex is activated. There is the centre for our conscious activities what can clearly be observed in an MRI-scan. The more an activity becomes routine the deeper walk the brain signals. Experiments reveal that people often cling to routines, even if they don't profit anymore.<sup>1</sup> This becomes obvious with regard to the consumption of tobacco.

Routines shape our daily business and, rather unconsciously, we profit from numerous rules and standards, e.g. for printing paper, sockets and drinking water. The purity law for German beer enjoys international reputation until date.

Ecoroutine picks up this logic, creates structures offering opportunities and self-employs the change towards sustainability. Turning point of the ecoroutine are concrete and simple political tools. All refers to schedules in form of limits and standards, such as for the weight and the carbon emissions of vehicles. It is about speed, parking, road construction, airports, pesticides, fertilizers, livestock, coal power, packaging, warranty periods, durability, reparability, financial transactions, and much more.

## This is the way of change

However, routines may change, for example, as a result of decisive events as traffic accidents or social structures. i.e. an environment that supports the process of change. That may be the social environment taken as a basis, for instance, for the »Weight Watchers« concept. Be-

---

<sup>1</sup> Trafton, Anne (2012): How the brain controls our habits, in: <http://news.mit.edu> (29.10.2012)

sides, the objective environment is of major importance as, for example, the ban of smoking in restaurants or the price of tobacco. The fastening of a seat belt in cars becomes finally routine due to the introduction of fines. Meanwhile, the use of a seat belt in cars has become as natural as teeth brushing. The prospect of being fined had the effect that we do what has been reclaimed by campaigns for years. As a result, about 10 000 people less died in traffic.

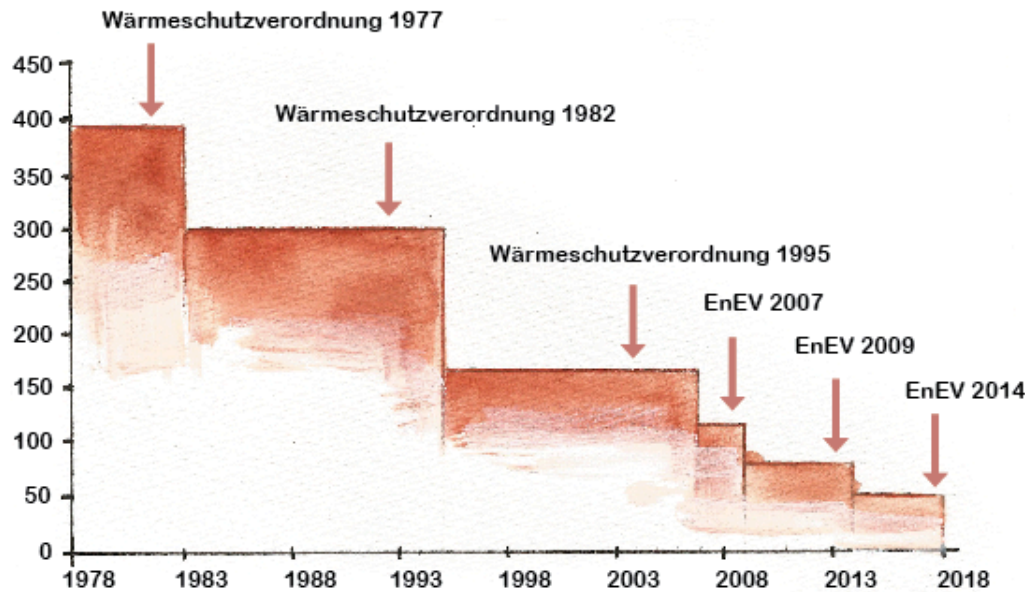
## Standards

A good example of how attentive consumption decisions may become individual as a result of a favourable environment provides the Ecodesign Directive of the European Union. It is an unvaluable source for the diffusion of efficient technologies and complies with the logic of ecoroutine.

So far, the directive is the basis for several regulations. Sometimes they weren't even recognised, so, for example, the stand-by regulation which finally stopped one issue hotly discussed by the efficiency politicians. Television, hifi-systems, clock radios and the like not seldom produced no-load losses of 40 Watt and more. For many years the customers have been addressed to take care on this form of hidden wastage. In trade, however, merely few calculated the costs for an operating life of ten years. More important were the television size and image resolution. Now the citizens needn't care about it. Regardless of which TV is chosen its power consumption is half a watt. This is nearly nothing.

The same applies to dozens of products while the legislator obliges the producers instead of discussing effectless incantation formulas about strategic consumption. Refrigerators and freezers – often the largest consumers in a household – allocated to the efficiency classes A, B and less haven't been offered in trade since July 2012. The much acclaimed factor-4-pump for the circulation of heating water easily saves 600 kilowatt hours per year, but has been recommended only by ambitious craftspeople. Now peak technology has become standard and neither craftspeople nor builders have to think about it anymore. Meanwhile, even the durability is considered as with regard to the vacuum cleaner. In this way, highest energy and resource efficiency may step to step become standard practice for all and, thus, eco becomes a routine.

In a similar way, the European Union treats the energy standards for new buildings (see **figure 1**). Meanwhile, there are also efficiency requirements for existing buildings. The Energy Efficiency Directive requires that oil-fired and gas boilers older than 30 years have to be replaced. Owners are now obliged to insulate the top ceiling of their houses until the end of 2015. The walls will have to be insulated as well, if an extensive restructuring of the facade is planned which includes more than a mere coat of paint and exceeds an area of more than 10 percent. To inform the lessors of these standards in association with a personal meeting and consulting on funding programmes, for example, takes time and money. For a city with more than 150 000 inhabitants it might be necessary to employ one person for such a task. It is well conceivable that this person will attain within short time more effective savings regarding climate protection than some of the officials.



**Figure 1: Energy Saving Timetable: The requirements to efficiency in buildings have gradually become stronger. Currently, the relevant indicator is the Energy Efficiency Directive of 2014. New housing estates are nearly subject to the zero-energy standard from 2021 on.<sup>2</sup> Thus, eco becomes a routine and everyone is joining.**

The great advantage of climate protection is: Our routines may change much more easier than our food or smoking habits. Efficiency standards for new buildings change the decisions of building owners without their support. This would be like reducing step by step the nicotine and carbon monoxide content of cigarettes due to legal requirements to such an extent that they are finally not harmful to health anymore. The progressively raised energy standards for new buildings have relieved the building owners of complicated moral issues. The additional costs will be amortized within the next 30 years. Economies of scale reduce the costs for the saved kilowatt hour in total. Finally, the statutory requirements make the saving technologies to a mass product.

### Limits

To enable green technologies to develop their full effect it's time to establish absolute limits. In other words: It is important to limit expansion. Necessary are limits for living space, speed, parking places, road construction, airports, pesticides, fertilizers and coal-based electricity. Travelling by airplane has become a routine, but if take-offs and landings of the airports will be stabilised at the present level, more efficient airplanes may lead to absolute reductions in consumption. Instead of requesting the people to fly less it's more realistic to limit the expansion of flights in total.

If no further streets are built, the expansion of truck traffic can be restricted or shifted to rail without any drivers' or forwarders' reflection what to do now and in future. In the same way, by limiting housing the heat requirement will be reduced. From this point of view limits have the potential to decouple rebound effects.

A speed limit is often even welcomed by people who like fast driving. Simply, because they consider it as reasonable, but can't manage it for themselves. Limits help us to make our be-

<sup>2</sup> Deutsche Energieagentur (editor) (2014): Der dena-Gebäudereport 2015. Statistiken und Analysen zur Energieeffizienz im Gebäudebestand. Berlin, page 117

havivour economical. It's not shrinkage that is required in this context. This has to be emphasized in a time in which a limitation of expansion alone is often described as a waiver. Even the Ecodesign Directive speaks of limits, e.g. with regard to the maximum consumption of vacuum cleaners or the water flow of shower heads.

## Bio for all

Ecoroutine has become well-established already with regard to the fields construction and housing. The same concept may be adopted to several other fields, e.g. the agricultural sector. Left on its own, organic farming will certainly not be able to develop. At the shop counter the citizens may daily decide on the weal and woe of eco-friendly forms of agriculture. In Germany, merely 3.4 percent of the consumed food is marked as pure organic product, in Denmark this is more than seven and in Austria at least six percent.<sup>3</sup> The change-over to responsible methods of cultivation is still in the beginning.

The Federal Government stipulated a 20% target for the share of organic farming in agriculture until the year 2020. Around eight percent have been achieved so far.<sup>4</sup> If transition continues to develop only slowly, the 20% target will not be achieved before the year 2070.<sup>5</sup> This is too long. Too many factors slow down the transformation process on the way to sustainable forms of agriculture: profit-making, competition, misdirected subsidies and the consumers' accustoming to too cheap food.

The study on nature awareness prepared by the Federal Government determined that a large majority of the German citizens would prefer stricter rules and laws for agriculture.<sup>6</sup> Instead of considering the single braking factors and searching for appropriate countermeasures, eco-routine will be more target-oriented if approached systematically and comprehensively; that we do, what we want to do.

It is only necessary to limit the use of pesticides and fertilizers. The rules already exist. The European Union is writing in detail to the farmers which limits have to be imposed. A timetable for the agricultural change would only need to reduce the extent and the period of time for the use of insecticides and fertilizers. This can be a generous period of time, for example, until 2030.

Since organic farming is more expensive, prices will increase slightly in the long-term. This cannot be made from one day to another, but only gradually so that the citizens will hardly realize the price increase for potatoes and cucumbers. Economic experts call this effect »price elasticity«. In 25 years the average citizen might then spend 14 percent instead of 11 percent of his income today for food. Since, as a consequence, the shopping cart for the assessment of unemployment and social benefits will be changed, the state social benefits have to be increased accordingly. This is provided by law already. As a result, a good meal would be appreciated as highly as in France or Italy. This is still far below the conditions applicable in the eastern part of the EU. In these countries the citizens have often to calculate a fifth of their income for food.<sup>7</sup>

---

<sup>3</sup> Bund Ökologische Lebensmittelwirtschaft (BÖLW) (2011): Zahlen, Daten, Fakten. Die Bio-Branche 2011. Berlin

<sup>4</sup> In 2014 it were 8.4 percent, BÖLW (2015): see above

<sup>5</sup> Maria Krautzberger, President of the Federal Environment Agency, according to Welt Kompakt (8.4.2015), page 5.

<sup>6</sup> Bundesamt für Naturschutz (2016): Naturbewusstseinsstudie 2015. Bonn

<sup>7</sup> Germany 2011:11.2%; France 2011:13.84%; Italy 2011:14.4%; Croatia 2007:20,46%; Lithuania 2011: 24.75%; Poland 2011:18.91%; Source: Federal Statistical Office: [www.destatis.de](http://www.destatis.de): Konsumausgaben privater Haushalte. Nahrungsmittel (7.12.2015)

At the same time, expenses can be saved in many areas. Traders for organic products may sell their goods much cheaper than today, since a comprehensive ecological production is more cost-effective than the niche production of today. The considerable costs for the certification of bio goods are thus omitted, while the control procedures remain unchanged. Special funding programmes for the transition of a conventional farm to bio standard are not necessary anymore. The gradual transition does not include a disadvantage which has to be balanced by subsidies, since the competitors have to observe the higher standards as well. The distribution channels become cheaper and more effective. A return to rural idyll and small business will not be a consequence thereof, if the schedule of agricultural turnaround is realized. Small is not a prerequisite for eco. Some of the progressive techniques useful for organic farming may be realized only by bigger farms.

Result: Bio for all! The two-class society at lunch becomes history at least with regard to eco food. Competition and a pursuit of profit will and can exist further, merely their operating direction has changed. Subsidies will still be necessary, for example, to secure grazing in the alpine regions.

Everyone will profit from the agricultural turnaround: the consumers, the next generations, the health insurance companies, even the farmers and the entire economy. The production of bio goods requires a higher work effort. About 90 000 jobs could be generated in France if the number of bio farmers is increased to nine percent. At present, merely four percent of the agricultural area in France is managed organically.<sup>8</sup> The job plus compensates a possible decrease in turnover with regard to the exportation of cereals and meat to non-EU countries. This effect is desired, since the shipment of subsidized food to other continents is harmful from an economic point of view and should be questioned morally if this leads to a collapse of the local markets in poorer countries.

What the actual job potential of the agricultural turnaround will be can be estimated only. But one thing, however, is certain already now: Many additional jobs will be generated – the dream of all economic developers and politicians. Merely the producers of fertilizers and pesticides are probably less enthusiastic.

Food is a billion euro business, from seed to the ready-to-serve meal for microwaves. The concept of ecoroutine will not enjoy popularity among the profiteers of the industrialized agriculture. Not because »bio for all« might not be suitable for making money. Ecoroutine means a gradual change in the system. The business areas will change, which is naturally difficult for groups. This can be observed with regard to the slow reaction of German energy groups in relation to the energy transition. At first, they ignored the new development, then they put the breaks on in order not to fall out of the loop completely. As with regard to the energy sector, the agricultural transformation might probably not be realized together with but only against the large groups. As regarding the energy transition, structural mechanisms have to be established which start the modification process required by the general public. The schedule for the agricultural turnaround created by ecoroutine is, to some extent, the Renewable Energy Act for the agricultural sector. Compared to the achievement of a gradual disappearance of nuclear power, ecoroutine may support an end of martial animal husbandry and excessive use of fertilizers and chemicals. Yes, we can!

## Fairness

Standards and limits may not have a direct influence on the people's wallets and can hardly be considered to be unsocial. A speed limit, for example, is deeply solidary. It will affect all to

---

<sup>8</sup> Canfin, Pascal (2006): *L'économie verte expliquée à ceux qui n'y croient pas*, par Pascal Canfin. Ed. Les petits matins, 2006, page 107, according to Latouche, Serge (2015): *Es reicht! Abrechnung mit dem Wachstumswahn*. Munich 2015, page 122

the same extent. If, however, petrol prices are going to be increased, poor people will hardly be able to use their cars anymore. Wealthy people, however, will not be affected. The concern will be fairly distributed if no new streets are built. It is true that a street building moratorium appears as utopia, it's not unfair, however. The same applies to the carbon limit to be observed by the European car fleet. In future, there will be an absolute limit of 95 gram CO<sub>2</sub> per kilometre. The citizens of the European Union hardly notice it – regardless of whether poor or rich.

### **Freedom: Ecoroutine is ecoliberal**

With regard to the management concept of ecoroutine it may be responded that such requirements are authoritarian. At the same time, however, it may be a sign of individual freedom and personal discretion to individually decide the speed of the car, for example. But road and air transport severely suppress the civil liberties of residents and the right to physical integrity of pedestrians and bikers. And very obviously our way of life ignores the civil liberties of future generations. Absolute limits for resource consumption and carbon emissions are almost compellingly necessary, if the principle of freedom is thought through to the end. A good liberal policy does not only see the citizens as consumers but also as nationals with full citizen's rights.<sup>9</sup>

Applicable rules are characteristic for a democracy. New rules are established as a consequence to new problems. Society is subject to change. Accordingly, the applicable rules have to be reflected continually and to be reformed if necessary. A reform of rules appears due to changing values, e.g. the equality of women. From the right to vote up to quota regulations for executive boards in share companies, much of it is based on value judgements which again are subject to change. Sometimes, laws go one step forward and one step back. Seen from this perspective, ecoroutine is not to be considered as rigid concept but as a continuous metamorphosis.

### **Ecoroutine as political concept**

The sustainability discourse is still characterized by the belief in the power of the consumer. With regard to the environmental movement the »right« behaviour is discussed as much as the weather. Producers gratefully adopt this argument which is shifting the responsibility to the consumer. The politicians permanently repeat the mantra of an ecological behaviour which protects them from uncomfortable decisions. In this context ecoroutine sets a counterpoint. The concept neglects moral appeals and, instead, creates standards and limits which support the sustainability transition to become independent in major parts. Thus, our technologies and production methods become more nature-compatible and efficient and our behaviour will be less demanding.

Ecoroutine is based on a co-evolution of technique and culture. Standards, for example, ensure that cars become more and more climate-friendly. An end of new road construction while simultaneously the railway traffic is expanded will lead to a traffic turn. The emissions in air traffic will decrease due to more efficient technologies if the number of take-offs and landings does not grow further. Their limitation to the present level is the order of the day. The space heating requirement will decrease considerably if the new building activity is restricted at least in stagnating and shrinking regions. Such political requirements can certainly be realized only if they are supported by the voters. But experiences made so far revealed that ecoroutine releases our daily life.

---

<sup>9</sup> Schneidewind, Uwe / Zahrnt, Angelika (2013): *Damit gutes Leben einfacher wird*. Munich, page 23.

Routines shape our daily life and, rather unconsciously, we profit from dozens of rules and standards, as e.g. on our way to work: The alarm clock is proved according to safety standards, the clothes must be free from certain harmful substances, the same applies to coffee. The packaging is standardized as well as the information about the ingredients and nutrients on toasted bread. The car has been produced according to ISO standards. In this context the producers observed numerous state regulations. On our way to work we pay attention to many rules of traffic; the car bears a registration plate. The work itself is subject to standard wages, statutory working hours and security requirements. All this is rarely seen as a compulsory system, it's routine. In the same way the concept of ecoroutine allows us to do what we consider to be right without reflecting it in our daily life.

### **What's next for Donald Trump?**

How realistic are such ambitions with regard to the election of Donald Trump? Until date the republican regularly pointed out how irrelevant is climate protection for the welfare of the USA. It's an invention of the Chinese people to damage the US economy. It may be possible that the election result has a disastrous impact on the international negotiations regarding the restriction of global warming. The intention of ecoroutine, however, is not jeopardized by this. The existing standards have been decided without the approval of the Americans. This applies, for example, to the carbon emission rate of the car fleet or the standby loss of electronic device. They are applicable EU-wide, promote green innovations and enjoy an international reputation. Products from the US and China are subject to local standards.

### **The role of the citizens**

To implement the ecoroutine concept, the society needs active and involved citizens. People who demonstrate against large-scale livestock farming, wasting energy, more streets and coal plants. Reformers will not have an easy time, but the work is worth it. The German Energiewende, for example, started 30 years ago in the city of Aachen. Then, a small association tried for the first time the Act for Promoting Renewable Energies which is worldwide known today. It changed the world. High politics and the citizens' commitment go hand in hand.