



EUROPEAN COMMISSION
DIRECTORATE-GENERAL
ENVIRONMENT
Directorate C –Quality of Life, Water & Air
ENV.C.2 - Marine Environment & Water Industry

**STAKEHOLDER CONSULTATION MEETING ON THE
EVALUATION OF THE DRINKING WATER DIRECTIVE 98/83/EC**

26 MAY 2015

BRUSSELS, CHARLEMAGNE BUILDING

Summary of the Meeting

The stakeholder meeting on the Drinking Water Directive took place at the initiative of the European Commission and brought together participants from water regulators, water utilities, industry and non-governmental organisations. This document provides a summary of presentations, questions, statements and discussion, as well as links to related documents. The agenda with the meeting structure is attached in annex A, findings of the breakout groups are attached in annex B, and a list of participating organisations in annex C.

Welcome by E. Klaassens (Ecorys), E. De Roeck and T. Biermann (DG ENV)

T. Biermann on role and goals of the Commission

Presentation of the evaluation of the Drinking Water Directive, and in particular the Commission's role and goals in this evaluation.

The evaluation is perceived as a 'look back' exercise on the 1998 Drinking Water Directive, looking at

- effectiveness
- efficiency
- coherence
- relevance
- EU-added value

Main goal is an evaluation of the current directive and past experience based on this directive (1998 to 2015). On experiences gained, synthesis reports by the Commission, in particular the 2014 report findings¹, highlight certain aspects

- small supplies
- monitoring (cf. amendment of annexes II+III, with positive opinion expressed by the Drinking Water Committee on 20 April 2015)²

¹ http://ec.europa.eu/environment/water/water-drink/reporting_en.html

² Texts available at
<http://ec.europa.eu/transparency/regcomitology/index.cfm?do=search.dossierdetail&BmSh62tXn/fOpA00LSH4NorylrLuSpzaqj27FLvPJFMeHDFfthvD58Xjze+0UmR2>

- review of parameters (cooperation with the World Health Organisation)
- general information of the public
- derogations and exemptions.

The ongoing evaluation of the Drinking Water Directive is part of the Commission's Better Regulation initiative, on 19 May 2015 presented as a Commission Communication "Better regulation for better results - An EU agenda" and a Commission Staff Working Document "Regulatory Fitness and Performance Programme (REFIT): State of Play and Outlook". A short overview on these was presented and is available on the Internet.³

The timeline foreseen for the evaluation is

- an evaluation report by Ecorys (to be delivered to the Commission by the end of 2015), and
- a Commission commitment to have the evaluation process finalised by the 3rd quarter of 2016.

Health risk assessment is defined as specific task within the evaluation study, targeted at contaminants and quality of drinking water.

Actions for Member States in the Drinking Water Directive⁴

- compliance with parameters (article 4, annex I),
- monitoring programmes (article 7, annex II),
- remedial action (article 8),
- derogations (article 9),
- quality assurance treatment, equipment and materials in contact with drinking water (article 10), and
- adequate and up-to-date information for consumers (article 13).

As for expected results, actions, consequences and results/impacts are to be evaluated, looking at whether the Drinking Water Directive was / is

- effective i.e. objectives achieved, influences?
- efficient i.e. costs and benefits? Other more efficient ways?
- coherent i.e. internal coherence, within the Directive?
and external coherence, with other EU legislation?
Gaps? Overlaps?
- relevant i.e. are there appropriate or obsolete parameters and approaches?
- added value i.e. is their added value, entailing continuing action at EU level?

Based on the findings of the evaluation exercise, the Commission is to undertake an impact assessment.

³ Overview video clip <http://europa.eu/!QY43nC>;
Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions of 19.05.2015, COM(2015) 215 final, "Better regulation for better results - An EU agenda" http://ec.europa.eu/smart-regulation/better_regulation/documents/com_2015_215_en.pdf
Commission Staff Working Document of 19.05.2015, SWD(2015) 110 final, "Regulatory Fitness and Performance Programme (REFIT): State of Play and Outlook" http://ec.europa.eu/smart-regulation/better_regulation/documents/swd_2015_110_en.pdf

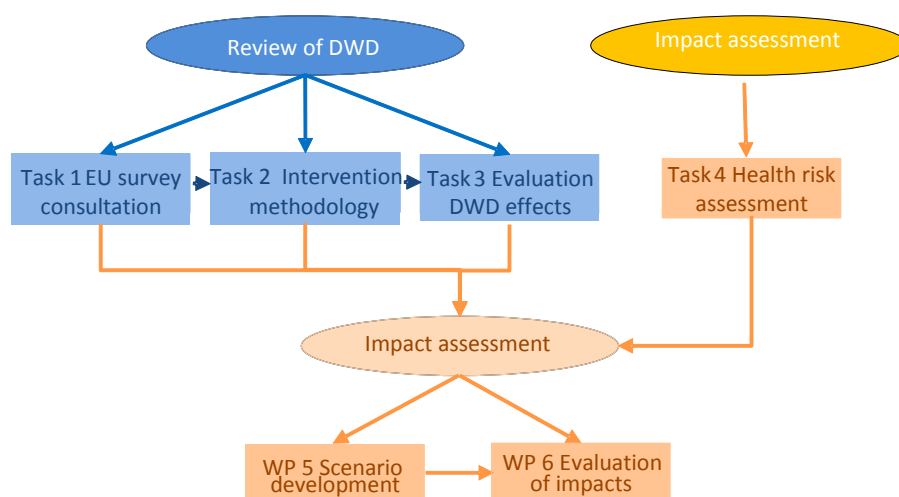
⁴ Full text of the consolidated version of the Drinking Water Directive at <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:01998L0083-20090807&rid=1>

E. Klaassens (Ecorys) on approach to the evaluation

The European Commission requested the study team to evaluate the Drinking Water Directive and to assess its impact. The main objective of the study is to support a possible revision of the EU drinking water policy and the current Drinking Water Directive.

The study consists of two main parts

- an ex post evaluation of the Drinking Water Directive and drinking water policy to assess whether the legislation is fit for purpose and achieving its objectives (tasks 1, 2 and 3),
- an ex ante impact assessment of future policy options for renewing the Drinking Water Directive (tasks 5 and 6). In this assessment a baseline scenario will be developed against which different possible alternative policy scenarios will be assessed in terms of environmental, health, social and economic impacts. A dedicated task (task 4) on scoping and testing drinking water health risks will inform the ex-ante impact assessment.



Partner companies Ecorys, Alterra Wageningen UR, ACTeon and the Regional Environmental Centre for Central and Eastern Europe (REC) have joined forces to conduct this study. In addition, KWR has joined the consortium, to provide expert knowledge on water quality and health effects.

Definition / scope of the different evaluation criteria were recalled:

- Relevance and coherence = the extent to which the given legislation is relevant to the identified needs and general EU policy objectives and coherent with other relevant policy tools.
- Effectiveness = the extent to which the legislation is achieving its operational, specific and global objectives.
- Efficiency = the relationship between financial and other inputs related to the implementation and enforcement of the legislation and the concrete outcomes (how economical have the various inputs been converted into outputs and results)

- EU value added = the extent to which an intervention supported at EU level brings about changes that would not have occurred through Member States acting on their own or cooperating bilaterally.

I. Vassileva (Ecorys) on results of the public consultation 2014

A total of 5908 replies, plus 136 position papers, have been received within the consultations process.

Summary of findings of the public consultation on the following aspects

- Revision of the list of parameters in the DWD (annex I) on the basis of new scientific evidence;
- Revision of the derogation regime - introduction of a new derogation regime to a limited extent and under strict conditions;
- Revision of article 10 of the DWD, or development of a new legislation, for establishment of a harmonised approach across Member States in respect of substances and materials that can be used in contact with drinking water;
- Introduction of a risk-based approach in drinking water monitoring and management;
- Strengthening of requirements with regard to ensuring transparency of the water service and provision of information at local level and at EU level.
- Pricing of the drinking water serves:
Transparency in pricing;
Application of the cost recovery principle;
Application of polluter pays principle.
- Establishment of standards for water losses in the distribution networks;
- Guaranteeing the right to access/supply of clean drinking water to every EU citizen including addressing problems related to artificial additives as fluoridation.

Detailed graphics summarising the public consultation are available at http://www.safe2drink.eu/wp-content/uploads/2015/05/Drinking-Water-Directive-stakeholder-consultation_presentations_26052015.pdf, and the Draft Report to the European Commission “Analysis of the public consultation on the quality of drinking water” is available on the DG ENV Website at http://ec.europa.eu/environment/consultations/pdf/analysis_drinking_water.pdf

Complementary questions by the audience were limited to

- a question for explanation of the ‘weighing’ of responses (cf. responses per country vs. weighed responses per country, i.e. referring to the share of population of a country within EU28), and
- a question on representativeness of responses (consultation *per se* an invitation by Commission to all citizens, on a voluntary basis).

H. Kros (Alterra Wageningen UR) on assessment of relevance – coherence – effectiveness – efficiency; approaches and some results

The aim of the study is

- within task 2: to develop an intervention logic including all the activities and expected effects of an intervention;

- within task 3: to develop a methodology to answer the evaluation questions related to relevance, coherence, effectiveness, efficiency and EU added value.

Current approach to evaluation

- Relevance: percentage of people protected, relevance of included parameters and quality of monitoring
- Coherence: Coherence between DWD and other directives (internal coherence comes later!)
- Effectiveness: Changes in non-compliance of relevant parameters
- Efficiency: Focus on comparison current versus risk based approach (Water safety plans)

These minutes provide only summarised information on presentations. For complete information please refer to background document and presentation slides⁵.

Relevance

- Which parameters are relevant to protect drinking water quality?
- Expert knowledge about health effects at exceedance
- Relevant for a (substantial) part of the EU
- Relevant in view of non-compliance
- Which additional parameters should be monitored that are important for human health?
Expert judgement based on knowledge about health effects of unmeasured parameters
Regulation of parameters in other countries outside EU

Coherence of DWD with other EU legislation; identification of related legislation and policies regulating water quality

- Direct regulation of water quality (e.g. Groundwater Directive)
- Regulation of emissions to water systems (e.g. Nitrate Directive)
- Regulation of emission to adjacent terrestrial systems (e.g. Pesticides Use Regulation)
- Indirect regulation of emission to soil or water via e.g. control of food quality (e.g. Food Directive)
- Regulation of Use of dangerous substances (e.g. Directive on Dangerous Substances)

Effectiveness: temporal trends & spatial variation in water quality

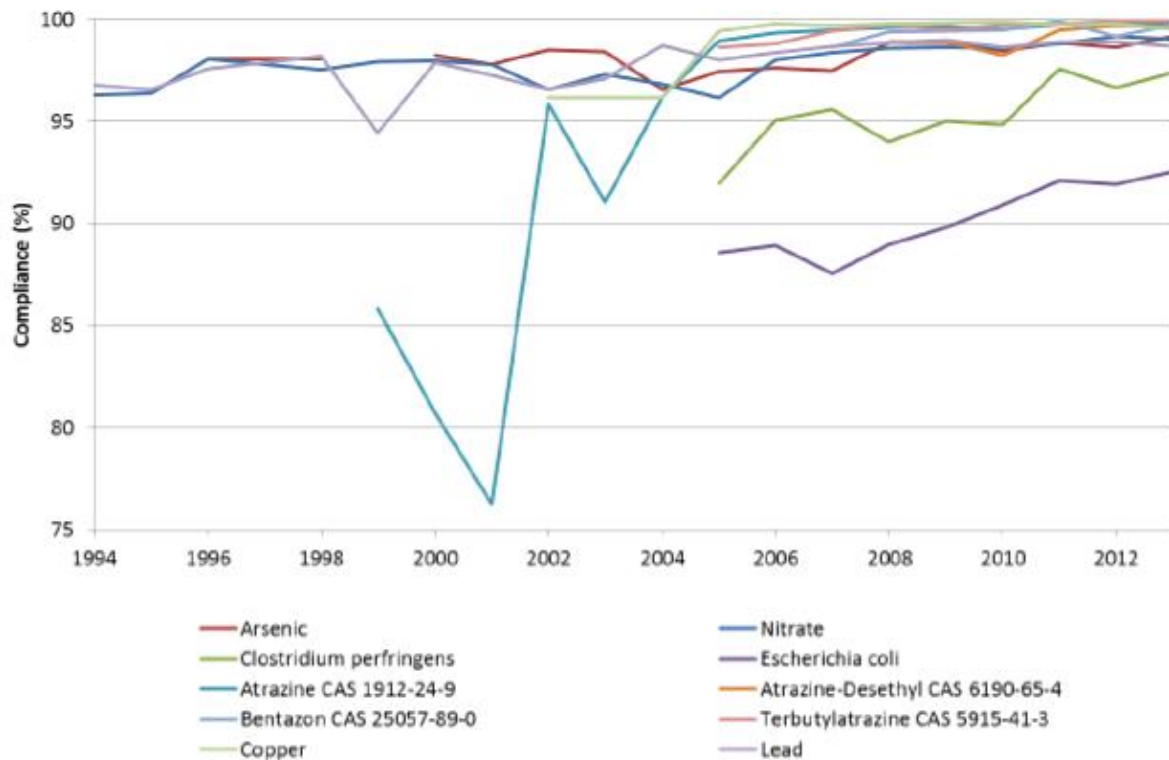
- Trends in compliance in water quality between 1993 - 2013
- Trends in water quality between 2005 - 2013
- Variation in current water quality (mean values 2010 - 2013)
- Mean compliance of all parameters
- Mean compliance of ten candidate parameters
- Mean compliance for each candidate parameters separately

⁵ Background document for the stakeholder meeting (compiled May 2015 by Adriana Hulsmann (KWR, Watercycle Research Institute), Erik Klaassens (Ecorys, Rotterdam), Hans Kros (Alterra Wageningen UR), Paul Römkens (Alterra Wageningen UR) and Wim de Vries (Alterra Wageningen UR)

<http://www.safe2drink.eu/wp-content/uploads/2015/05/DWD-Stakeholder-meeting-May-2015-Background-document.pdf>;

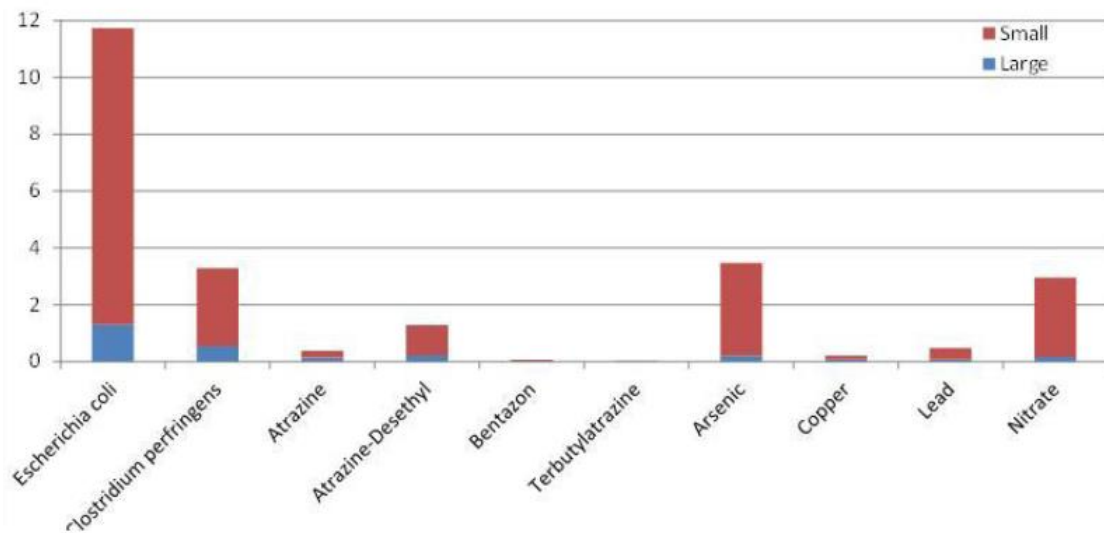
Presentations of the 26 May 2015 stakeholder meeting

http://www.safe2drink.eu/wp-content/uploads/2015/05/Drinking-Water-Directive-stakeholder-consultation_presentations_26052015.pdf



Mean compliance of ten parameters over the period 1993 - 2013

Trends in water quality 2005-2013: increase from an already high level of 95% to 97%⁶



Variation in current drinking water quality in large and small (<1000 m³/d) water supply zones, 2010-2013⁷

Efficiency - comparing pure monitoring approach to risk-based approach
Key components of a Water Safety Plan approach

- Setting health based targets (based on an evaluation of health concerns)

⁶ Source: Ecorys, KWR, Alterra (2015), based on DWD reporting obligations EIONet <http://rod.eionet.europa.eu/obligations/171>

⁷ Source: Ecorys, KWR, Alterra (2015), based on DWD reporting obligations EIONet <http://rod.eionet.europa.eu/obligations/171>

- System assessment to determine whether the water supply chain -from source through treatment to the point of consumption- as a whole can deliver water of a quality that meets the health-based targets
- Operational monitoring of the control measures in the supply chain, which are of particular importance in securing drinking-water safety
- Management plans (documenting the system assessment and monitoring; describing actions to be taken in normal operation and incident conditions – including upgrade and improvement), documentation and communication
- A system of independent surveillance that verifies that the above are operating properly

E. Klaassens invited the audience to propose issues to be added to the (second part of the) elaboration of the study:

B. Mendel (Health Ministry Germany): Some elements of legislation still need to be included, e.g. Construction Products Regulation

C. Leake (European Crop Protection Association): Scientific approach to “candidate parameters” appreciated.

K. Ockenfeld (European Copper Institute): On ‘looking back’, I would miss all the other water-related legislation linked to distribution of drinking water, i.e. on use of materials or pre-materials for drinking water supply (Reply Klaassens: Agreed, this is foreseen; current scope of legislation was only the first step).

A. Hulsmann: ‘Voting’ on a series of statements on the Drinking Water Directive

A series of 12 statements on relevance, coherence, effectiveness and efficiency of the Drinking Water Directive were read out to the audience, and their spontaneous response invited. Statements as well as results were to stimulate discussion in the breakout groups.

Statement 1

“Relevance: The current approach of the DWD (combination of standard setting, monitoring and remedial actions) is sufficient for safeguarding water quality and protecting human health.”

Response NO (“disagree” 40; agree 9)

Statement 2

“Relevance: The current DWD does not include all pollutants in the list of parameters.”

Response YES (“agree” 50; disagree 3”)

Statement 3

“Relevance: The quality of data gathered to assess trends in non-compliance data is insufficient.”

Response YES (“agree” 27; “disagree” 1)

Statement 4

“Coherence: Although inputs of pollutants are already regulated by other directives, the DWD has added value since it focuses on treatment and transport of drinking water. “

Response YES (“agree” 37)

Statement 5

“Coherence: There is insufficient harmonization between standards, forcing water supply companies to more treatment than needed.”

Response YES (majority “agree”, disagree 1)

Statement 6

“Effectiveness: Monitoring imposed by the DWD has improved water quality, since it has given insight in non-compliances and thereby initiated remedial actions.”

Response YES (“agree” 43; “disagree” 1)

Statement 7

“Effectiveness: The contribution of the DWD to improved water quality, relative to other policies, cannot be quantified.”

Response YES (“agree” 9; “disagree” 6)

Statement 8

“Effectiveness: The current DWD does not guarantee that specific local problems with water quality will be resolved.”

Response YES (“agree” 45; “disagree” 1)

Statement 9

“Efficiency: The current approach to monitor drinking water quality is inefficient, since it includes the monitoring of parameters that are not posing serious risks to human health.”

Response YES (“agree” 19; “disagree” 1)

Statement 10

“Efficiency: At present, health inspectors are not equipped to assess and evaluate a risk based approach (use of Water Safety Plans).”

Response YES (“agree” 23; “disagree” 2)

Statement 11

“Efficiency: The current derogation practice is too flexible and conditions not strict enough.”

Response NO(“agree” 7; “disagree” 18)

Statement 12

“Efficiency: Insufficient information to consumers will turn them to other water resources than DWD protected drinking water.”

Response YES (“agree” 30; “disagree” 4)

Breakout groups (13:30-15:00)

Three breakout groups discuss

- Relevance and Coherence of current approach (moderator: W. Cramer, VEWIN)
- Effectiveness of current approach (moderator: T. Lettieri, European Commission Joint Research Centre)
- Efficiency of current approach (moderator: C. Carpentier, Benten Water Solutions)

Continued plenary session, with presentation of discussions and findings of the breakout sessions by moderators

The main conclusions as presented by the moderators to the plenary are set out below. The shortlist of main action points per stakeholder group on each topic is attached in Annex B.

Group 1, findings on “relevance and coherence” presented by W. Cramer (VEWIN)

The Drinking Water Directive is regarded as a robust framework for protecting human health.

Without doubt, there is added value in the Drinking Water Directive, as it ensures drinking water quality at the tap. The current stand-alone legislation addressing drinking water quality has proven to be effective. However, for the future several issues need to be addressed:

- coherence with other elements of EU legislation;
- a broader approach on certain elements (in particular on materials in contact with drinking water consistent with the Construction Products Regulation, and on water safety plans); and
- challenges of emerging pollutants and new sources for drinking water supply (e.g. desalination, as well as water reuse).

Positive effects, not least in shaping minds and planning in Candidate Countries and new Member States, have been observed.

On parameters and values, the current Directive already enshrines a clear obligation for the Commission to regularly review parameters and values⁸; this should therefore be an ongoing process.

Related EU legislation: environmental directives, products legislation and food legislation.

Group 2, findings on “effectiveness” presented by T. Lettieri (European Commission Joint Research Centre)

⁸ Article 11, Review of Annexes

“1. At least every five years, the Commission shall review Annex I in the light of scientific and technical progress and shall make proposals for amendments, where necessary, under the procedure laid down in Article 189c of the Treaty.”

There was consensus among stakeholders that the DWD has significantly improved water quality significantly at EU level. However, there is need for improvements in the following fields:

- increase of the representativeness of the monitoring procedure;
- introduction of water safety plans and monitoring at the source;
- more attention to human health effects; and
- regulation for materials in contact with drinking water.

On the question whether a quantification of added value of the DWD is possible, diverse responses came from groups: Group 1 agreed that there is added value, however quantification was not possible. Group 3 agreed that there is added value, but was not sure about benefits. The DWD has improved water quality in all Member States, but there is a large difference in benefits across Member States, not least because of some regions with a rather low connection rate to water supplies. To note in this context – the Drinking Water Directive does not enshrine an obligation for drinking water supply, whilst the Urban Waste Water Directive does contain an obligation for waste water collection and treatment.

On reporting for small water supply zones, one group concluded that no reporting obligations should be imposed, a second group that all water supply zones need to be reported, while the third group referred to administrative burden: WSZs should not directly report, but the data be assembled at regional or national level before being reported to the Commission. New technologies and approaches would need to be used, along the lines already established for bathing water and waste water data.

Group 3, findings on “efficiency” presented by C. Carpentier (Benten Water Solutions)

An EU added value of the Drinking Water Directive exists without doubt, even if current approach is considered inefficient. On monitoring, the current approach is regarded as inefficient, as parameters are monitored which are not posing serious threats for human health. At the same time, current monitoring does not at all address the distribution network.

A solution might lie in a risk-based approach in the future.

Overall, such risk-based approach should largely increase (e.g. no need to change derogation rules)

On knowledge and experience of operators and health inspectors, there are considerable differences between Member States, on the one hand because of the number of water supply zones, on the other hand because of their organisational structure (each small supply served by one small operator each, or one operator serving several supplies). Considerable efforts will in many regions be required to ensure the necessary knowledge and expertise for implementing a risk-based (WSP) approach.

On derogations, the text of the Directive is per se not regarded too flexible, however some Member States’ practice is. Derogations are not regarded as a matter linked to efficiency challenges.

On consumers' attitude to using other sources of drinking water than tapwater, a considerable difference between countries was observed (high consumer confidence in tapwater in some countries, insufficient information in others). The challenge for the future will be to identify who should provide information and how. Simply more intensive marketing of tapwater might not always deliver the envisaged results.

Panel discussion

Panel members: D. Gatel (EUREAU - European Federation of National Associations of Water Services), C. Leake (ECPA - European Crop Protection Association), B. Mendel (Health Ministry Germany), K. Ockenfeld (European Copper Institute), M. Vuerich (ANEC - European Association for the Coordination of Consumers Representation in Standardisation)

Panel members, representing government regulators, pesticides industry, materials industry, water utilities and civic organisations, were asked to shortly present feedback on issues raised during presentations and discussions, and to come forward with suggestions to improve the current DWD.

Statements by panel members

D. Gatel (EUREAU - European Federation of National Associations of Water Services)

EUREAU is happy with the Drinking Water Directive, perceived as a good piece of legislation, and considers it as very effective in improving drinking water safety. Delivery of safe drinking water for the protection of public health is a constant process.

Any revision has to retain legal certainty for drinking water operators. A revision takes time, a fact widely accepted throughout Member States.

The ongoing review of parameters and values is appreciated, with amended parameters and values to be established at EU level - however only for those parameters relevant across the EU (cf. current obligation in article 5(3)⁹ on additional parameters at regional or national level).

M. Vuerich (ANEC - European Association for the Coordination of Consumers Representation in Standardisation)

In general, drinking water quality is perceived by consumers as good. However, there are gaps in terms of emerging pollutants.

On information to consumers, there is a need for reliable information (compliance against limit values). Further, tapwater should be better marketed as a safe source of drinking water.

On protection of drinking water, there is need to look at the whole supply chain.

The European acceptance scheme for products appears worth being integrated.

⁹ Drinking Water Directive, article 5(3): "A Member State shall set values for additional parameters not included in Annex I where the protection of human health within its national territory or part of it so requires. The values set should, as a minimum, satisfy the requirements of Article 4(1)(a)."

Results of the public consultation support a review of the list of parameters list, better and easy to access information for consumers, current remedial action in the future to be complemented by preventive action.

C. Leake (ECPA - European Crop Protection Association)

ECPA in principle very much supports the existence of the Drinking Water Directive; it is regarded as fit for purpose and quite robust, and it is important to set standards at EU level.

ECPA stresses that that parametric value for pesticides of 0.1 microgram per litre is a political one, following the precautionary principle, and not based on science. Does public know that the limit value is precautionary?

Impact on farmers and pesticide producers: in the EU e.g. atrazine is not on the market any more, however they are available to farmers outside the EU, thus leading to competition advantages for the latter.

On today's discussion: ECPA is of the view that water safety plans need to be developed at local level, and that coherence with the Water Framework Directive and food legislation must be ensured.

K. Ockenfeld (European Copper Institute)

Drinking water quality might decrease between production/treatment and consumption in the context of distribution. Article 10 is therefore very relevant. Our industry has got concerns that a continuing lack of regulation in this field might lead to a decrease of use of good materials.

B. Mendel (Health Ministry Germany)

There is a need for maintaining a Drinking Water Directive at EU level, however after 17 years there appears to be a reason for a revision.

Future changes should entail easier adaptation to technical progress and thus changes e.g. on parameters and values (annex I; currently only annexes II and III are open to adaptation by the Commission).

The water safety plan approach is positively perceived, but will require broad discussion and acceptance by all involved, including water suppliers and other stakeholders.

Coherence with other EU legislation needs to be maintained and wherever required to be extended.

Comments by audience

L. Simas (ERSAR Entidade Reguladora dos Serviços de Águas e Resíduos, Portugal drinking water regulator)

On materials in contact with drinking water, there is a need for action at EU level, cf. rules for foodstuff vs. rules for drinking water.

On risk assessment and water safety plans, a thorough discussion will be necessary involving all countries, stakeholders etc.

Conclusions by E. Klaassens

Quite some lively discussion during the afternoon. Still in the middle of a process. Broad presence, allowing not least for the Commission to listen to many stakeholders, but also to get to know representatives of stakeholders. Any future input to the process

Work ongoing over the summer. Drafting of report to start in September. After the summer, work on impact assessment to start; another stakeholder meeting to be convoked on the basis of first findings.

Conclusions by T. Biermann

Thanks by the Commission to all participants. The meeting has provided a very valuable contribution to the evaluation process. The Commission invites all involved to submit additional comments by end-June to Ecorys' functional mailbox¹⁰.

¹⁰ safe2drink@ecorys.com

**Stakeholder meeting Drinking Water Directive
26 May 2015
Brussels, Charlemagne building**

Final agenda and timetable

10:00 – 10:15	Introduction to the project (E. Klaassens, Ecorys)
10:15 – 10:30	European role and goals (T. Biermann, DG ENV)
10:30 – 10:45	Approach to the evaluation (E. Klaassens, Ecorys)
10:45 – 11:30	Project results to date <ul style="list-style-type: none">- Public Consultation (I. Vassileva, Ecorys)- Approaches and results related to the relevance, coherence, effectiveness and efficiency of the DWD (H. Kros, Alterra Wageningen UR)
11:30 – 11:45	<i>Coffee break</i>
11:45 – 12:00	Reflections/comments from the audience
12:00 – 12:30	Statement election (voting, A. Hulsmann, KWR)
12:30 – 13:30	<i>Lunch break</i>
13:30 – 15:00	Breakout groups: 3 sessions addressing 3 topics <ul style="list-style-type: none">- Relevance and Coherence of current approach (moderator: W. Cramer, VEWIN)- Effectiveness of current approach (moderator: T. Lettieri, European Commission Joint Research Centre)- Efficiency of current approach (moderator: C. Carpentier, Benten Water Solutions)
15:00 -15:15	<i>Coffee/tea break</i>
15:15 – 15:45	Presentation of outcomes from break out groups by moderators
15:45 – 16:30	Panel discussion: B. Mendel (Health Ministry Germany), C. Leake (European Crop Protection Association), K. Ockenfeld (European Copper Institute), M. Vuerich (ANEC European Association for the Coordination of Consumers Representation in Standardisation)
16:30 – 16:45	General discussion / feedback / reflection by stakeholders / additional issues
16:45 – 17:00	Closing remarks (E. Klaassens, Ecorys and T. Biermann, DG ENV)

**Stakeholder meeting Drinking Water Directive
26 May 2015
Brussels, Charlemagne building**

Overview of discussion per stakeholder group

Stakeholder Group 1, Member State regulators

Main action points on Relevance and Coherence

- *General comments on relevance and coherence:*
 - The DWD is not designed to incorporate a risk approach.
 - In general, there is room for improvement, but the overall objectives of the DWD relevant for human health are acceptable.
 - The DWD focuses on the quality of the drinking water, not necessarily on the access to drinking water. It is agreed that every citizen should have access to clean drinking water, but it may not be cost effective to organize this through public water utilities (reference to situation in Hungary)
 - The DWD has three main objectives, i.e. information on what is monitored, information supply to consumers and information supply to the Commission.
 - The DWD is a product related guideline, there is no reference to polluter pays principle.
- *Relevance and coherence of parameters:*
 - The list of parameters may not be sufficient to safeguard all human health risks, additional national legislation remains needed. A revision of parameters is needed.
 - The EU DWD should focus mainly on those parameters that have relevance for all MS. It is however already possible to report on additional (locally important) parameters.
- *Data quality:*
 - In general the quality of the data is ok. However, in certain cases insufficient data is supplied.
 - Information supply to the general public is important. The general public does not have access to data (specifically on local level).
 - The EC could stimulate or support geographical information systems accessible by the public with DW water quality data (experiences in Spain and Austria).

Main action points on Effectiveness

- *General comments on effectiveness:*
 - From UK perspective the DWD has proven to be very effective as it regulates the independent regulators. This is confirmed for Germany (stated during R&C session).

- Atrazine decreased because it was banned, but it was banned by awareness raising due to the DWD, so there is a circular effect/benefit. This is true for pesticides as well as for other components.
- MS regulators are divided with respect to the approach of the small WSZ monitoring.
- *Effectiveness of (non-compliance) monitoring under DWD:*
 - Non compliance monitoring: 1) has improved drinking water quality, especially for microbial parameters 2) has raised awareness in the past and still does for newer MS, and thus improved water quality 3) is at the tap is effective for some chemical parameters such as Pb, but less effective for other parameters 4) is not effective, because it is focusing on water at the tap and not at water in the system 5) is focusing at long-term (yearly) intervals this means in case of short-term incidents (calamities/small accidents), the period between an incident and the remedial action is not protected by the DWD.
- *Approaches for improvement:*
 - Current non-compliance monitoring is not enough, especially for large WSZ. For these the current sampling procedure the DWD does not adequately guarantee the safety for all people. The density and the selection of sampling points require an update. The number of monitoring sites, frequency and sampling is not sufficient.
 - In view of micro biological monitoring the current DWD is not effectively protecting human health, e.g. in case of legionella. Thus in these cases the DWD is not effectively protecting human health. So there is still a gap between the DWD overall objective and the DWD impact.
 - Member States should also report on small WSZ to the Commission.

Main action points from Stakeholder group 1 on Efficiency

- *General comments on efficiency:*
 - If there are gaps in information and people have to decide if they trust the water or not they will not drink it.
 - On derogations it was said that it acted as an effective tool to motivate remedial actions e.g. in Hungary for arsenic, fluoride, nitrate and ammonia.
 - Monitoring under the DWD was considered to be inefficient. For some parameters there is a health reason to be in the parameter list. For parameters that do not change very much e.g. natural geogenic parameters the monitoring frequency is not very effective. It also depends on their toxicity such as arsenic and fluoride.
- *Efficiency of the WSP approach:*
 - In a WSP approach the risk assessment is an excellent tool. Parameters that stay the same for decennia need a different approach as compared to the parameters that vary e.g. pesticides over the year. It is more efficient to check drinking water based on risks for human health.
 - Health inspectors do not have sufficient experience to deal with the auditing of a WSP. They need to be trained especially at the beginning. It will then be more efficient but finances and resources are needed.
- *Efficiency of the dissemination of information to the public:*

- People want information on the quality of the water e.g. in Spain they ask for that. Water in the home country is often trusted but there is no trust in water from other areas. Here is a role for the EU to provide information at EU level. There is a significant role of the press in the trust people have in tap water.
- Debate on what type of information is needed and how it should be provided. This depends on the cultural setting.
- The request for information on progress, control and a regular dataflow will be very effective. This will be even more effective with a Risk based approach. With the implementation of the RBA, a separate procedure for derogations may no longer be necessary.

Stakeholder Group 2, Industry representatives

Main action points from Stakeholder group 2 on Relevance and Coherence

- *General comments on relevance and coherence :*
 - There is less focus on the distribution system; more harmonization is needed, especially for materials in contact with water.
 - There is less focus on the consumer side.
 - The long term effects of using/adding new water types, such as desalinated water, to the drinking water network may have effects on the long term, e.g. biofilm formation and introduction of new compounds (intermediates).
- *Data quality:*
 - The quality of the data seems ok in general, but the WQ data for small supplies is less sufficient.
- *Approaches for improvement:*
 - The DWD protects human health; addition of risk assessment will further enhance this. The DWD is a basic framework that needs improvement to incorporate a risk approach (WSP).

Main action points from Stakeholder group 2 on Effectiveness

- *General comments on effectiveness:*
 - As standalone regulation, the DWD is very effective (stated during R&C session).
 - The DWD is one of the best Directives there is.
 - Industry stakeholders are divided with respect to the approach of the small WSZ monitoring.
- *Effectiveness of monitoring under DWD:*
 - Monitoring has improved the water quality, the statistics prove this.
 - Source control (monitoring) would help to increase the effectiveness.
- *Credit of the DWD of increase in drinking water quality:*
 - Contribution of the DWD can be quantified partially only.
 - Objective quantification of the DWD is not possible.

Main action points from Stakeholder group 2 on Efficiency

- *General comments on efficiency:*
 - Derogations are not considered to be too flexible, they are actually very strict.
 - It was mentioned that most problems arise in the domestic installation through poor materials, poor design and incorrect operation. Also the higher temperature plays a role here. Most risks at the tap concern E. coli and this risk might increase when other types of water are used e.g. recycling of rainwater. Incorrect design resulting in long residence times and circulation of water in the systems (especially in Eastern Europe) will lead to non-compliance.
 - On indicator parameters there are experts that want to rethink the concept of these parameters and want to leave it to operators to decide which ones are useful to monitor.

- *Efficiency of the WSP approach:*
 - Monitoring frequencies in general are to be abandoned once a WSP is in place. Others are of the opinion that mandatory monitoring will remain necessary.
 - The role of health inspectors will change once WSP are in place. Not all MS have the WSP in legislation yet but those that do not will still have to develop the necessary capacity in the inspectorates. Some MS such as FR/DE have more than 3000 suppliers and will face some problems to organise the verification task.
 - Not all MS might have a system in place and the audit of the WSP might differ from one MS to the next. It is important to ensure proper harmonisation.

- *Efficiency of the dissemination of information to the public:*
 - Insufficient information does not necessarily result in people turning to other sources of drinking water. Consumers take water for granted and are not interested in information. Others stress that there is insufficient information on water such as on costs, how to handle and use drinking water and e.g. the impact of stagnation time and temperature on the occurrence of Legionella. There might be cultural differences between MS in use of other water sources and need for information.
 - People coming from other countries where the water is not reliable will need information before they drink water from the tap.
 - Information needs to be provided at local level and at EU level combined and also through social media. The EC should make sure that info system is in place and encourage its use.
 - The public consultation has shown that where people trust the water in their own place they might not drink it in countries they visit. There is a role for the EU here.

- *Discussion on the WSP approach:*
 - Participants miss information on the quality of water in the distribution system to monitor and identify sources of significant changes between the production plant and the tap. Sensors should be used to be able to deal more efficiently with quality problems. The use of ICT will provide real-time information.
 - Not everybody agrees with this point of view. Also because the WSP approach includes this aspect and also looks at the impact of the domestic installations.

- In short: most problems occur in the distribution network and the domestic installation. To be solved with sensors and WSP approach.

Stakeholder Group 3, Utility providers and researchers

Main action points from Stakeholder group 3 on Relevance and Coherence

- *General comments on relevance and coherence :*
 - The current DWD focuses on failures mainly instead of successes.
 - The DWD is fit for use, it is a robust system, and has been very important for health issues, especially in the new MS.
- *Data quality:*
 - Methods for data collection and analysis differ between MS, which may result in different incomparable results between countries. In general, within countries, similar methods are used.
 - The DWD does not focus on treatment and transport of water (see statement 10), but on the quality at the tap.
- *Relevance and coherence of parameters:*
 - Some parameters, e.g. pesticides, have low values related to the precautionary principle, this puts pressure on water supplier where Environmental Quality Standards (WFD/Priority Substances Directive) are set above the precautionary DWD standard.
 - Materials in contact with water needs more attention
 - New pollutants, e.g. those present in new MS need attention, as well as byproducts of treatment
- *Coherence of the DWD:*
 - The DWD does fill a gap between other directives, but sometimes conflicting goals (human health, ecological risks).
 - A water cycle approach is missing when developing and applying different EU directives.
 - Link to legislation on food stuffs, industrial production is needed.
 - Link to developments leading to circular economy, changing sources of water, reuse of waste water etc., introduction of new risks.
 - Internal inconsistencies exist, when the DWD is not revised in time (Italy).

Main action points from Stakeholder group 3 on Effectiveness

- *General comments on effectiveness :*
 - It has improved water quality in the past, but for some part it still needs some attention/improvement. The current DWD is capable to establish additional improvements.
 - The process is fine, but more harmonisation is required (i) for materials and (ii) for reporting.
ad (ii): this is needed for installers – one standard would benefit a lot.
 - A WSP will increase the effectiveness and should be conceptually incorporated.

- There is certainly a benefit of the DWD, e.g. for pesticides, but whether it is sufficient is hard to quantify.
- Take into account that for some aspects of the DWD an answer is hard/impossible to get.
- *Credit of the DWD of increase in drinking water quality:*
 - The DWD has contributed positively to other water policies.
 - There is a substantial improvement, but this is hard to quantify. Except for microbial parameters and in case of calamities.
 - Evaluation of the effectiveness of the DWD can only be done qualitatively.
- *Approaches for small WSZ reporting improvements:*
 - Small WSZs should be better covered in southern MS with islands (has also a large economic benefit). Currently it is not known what is going on in these locations.
 - Additional reporting/control of small WSZs requires additional skills, staff and bureaucracy, it can benefit from the help of national authorities and an efficient use of ICT.

Main action points from Stakeholder group 3 on Efficiency

- *General comments on efficiency :*
 - Some parameters in the DWD are only operational and the question is if it is worth the effort to monitor them. For some parameters such as nitrate and lead the DWD has been very effective. And there is the possibility to monitor less frequently if a substance is not found.
 - The current derogation system is not too flexible but MS are too flexible in implementation of the derogations. Some MS granted first derogations for substances that posed a risk to human health. The EC only comes in when there is a second derogation. The derogations granted by the MS are a toothless tiger. The third derogation is the responsibility of the EC and more serious. There should have been better guidance, stricter timelines for water suppliers and a more thorough monitoring process. Some MS were not able to deliver properly.
- *Efficiency of specific parameter monitoring :*
 - Lead can also come from other sources. It is not possible to monitor each tap and it is therefore important to regulate good materials in the system. In addition it is important to provide information to consumers on the possible presence and dangers of lead.
 - Indicator parameters do not indicate health problems. Currently monitoring is not very efficient and WSP approach combined with flexible monitoring is the way forward. A proper risk assessment is needed.
 - Standards should be set at EU level and monitoring at MS level.
 - There should be a different responsibility with respect to WSP. EU is the major regulators and should look at national policies while MS should look at the WSP. The national regulators regulate the water supply companies.
- *Efficiency of the WSP approach:*
 - The Health inspectorates are generally not equipped for the WSP audit, with the exception of a few MS where WSPs are now common practice (e.g. UK).

There is no harmonised approach yet, but once the approach is in place the audit can happen very quickly. In Romania e.g. all health inspectors had a training some years ago.

- Through the WSP the frequency of other parameters might be increased.
 - There is a market for the WSP to sell the approach to private suppliers and local authorities. This market will develop when there is demand.
 - The WSP is better than the current approach. Small water suppliers can ask for assistance from local or municipal authorities or outsource the work. That is done in Ireland with the group water schemes.
 - WSP are worth the effort, especially for small WSZs.
- *Efficiency of the dissemination of information to the public:*
- The effect of information to the public is not so big as always thought, only a handful of people are affected. Bottled water consumption has to do with people switching from soft drinks to water and too little advertising of tap water. The bottled water industry now uses the campaign against soft drinks to push bottled water. The drinking of bottled water is very much culturally determined, and not necessarily the result of not trusting the tap water.
 - If there was more information on tap water people would use it more. There is a general disinterest in water. There is a general perception that tapwater is good and safe. It varies from MS to MS.

**Stakeholder meeting Drinking Water Directive
26 May 2015
Brussels, Charlemagne building**

List of Participants

Company	Type of organisation
MB Brussels	Industry, Consultants
EGA	Industry
Benten Water Solutions / EIP Action Group RTWQM	Consultants
Prime Water	Industry
Cranfield University	Other
Spanish Ministry of Health	Governments and regulators
European heating industry	Industry
Water UK	Other
EUnited Valves	Other
European Topic Center on Inland, Coastal and Marine Waters (ETC/ICM)	Research centre or university
AquaFed	Other
State General Laboratory of Cyprus	Governments and regulators
National Institute for Public Health and the Environment of the Netherlands	Governments and regulators
Agbar	Utility, Other
Ministry of Interior of Hungary	Governments and regulators
Brita GmbH	Equipment manufacturer, Industry
ANEC	NGO or (local) civil organisation
Orgalime	Industry
Med.Hydro s.r.l. Action Group Ctrl+Swan	Other
Aqua Publica Europea	Utility
HLPUG Hessisches Landesprüfungs- und Untersuchungsamt im Gesundheitswesen	Member State authority, Governments and regulators

Company	Type of organisation
Veolia	Utility
Ministry of Health of Germany	Governments and regulators
ERSAR - The Water and Waste Services Regulation Authority, Portugal	Governments and regulators
Department of the Environment of Ireland	Governments and regulators
Bayer Crop Science	Industry
Centre for Water Systems - University of Exeter	Research centre or university
DG Environment - European Commission	Governments and regulators
VEWIN - Unie van Waterschappen	Utility, Member State authority
Ministry of Social Affairs, Health and Women Rights of France	Governments and regulators
VKU	Other
CEEP (European Centre of Employers and Enterprises providing Public Services)	Utility
SUEZ Environnement	Utility
CEIR - The European Association for the Taps and Valves Industry	Industry
Hach Lange GmbH	Industry
Deutsches Kupferinstitut Berufsverband e. V.	Industry, Consultants
Estonian Ministry of the Environment	Governments and regulators
RIVM (National Institute for Public Health and the Environment)	Research centre or university
FIGAWA - German association of businesses in the gas and water sector	Equipment manufacturer, Industry
European Vending Association	Industry
Environmental Protection Agency of Ireland	Governments and regulators
EUREAU (European Federation of National Associations of Water Services)	Utilities organisation
Ministry of Infrastructure and Environment of the Netherlands	Governments and regulators
EUROCHAMBRES	Industry
SWK - Stadtwerke Köln GmbH	Utility

Company	Type of organisation
Zentralverband Sanitär Heizung Klima	Industry
Ecorys	Consultants
Alterra Wageningen UR	Research centre or university
KWR Water	Consultants