



# The Revision of the Drinking Water Directive 98/83/EC

May 2017

Article 10 - Products/Materials in contact  
with Drinking Water



European Commission  
Directorate General for the Environment  
Unit C.2



## The Evaluation of the Directive (DWD)

- Right2Water European Citizens' Initiative, followed by a Public Consultation 2014
- Inclusion in the Commission Work Programme 2015
- Evaluation Study launched January 2015; following REFIT principles
- Study published in July 2016 [www.safe2drink.eu](http://www.safe2drink.eu)
- Staff Working Document on the REFIT Evaluation finalised in December 2016, **SWD(2016)428 final**  
[http://ec.europa.eu/environment/water/water-drink/review\\_en.html](http://ec.europa.eu/environment/water/water-drink/review_en.html)

## Evaluation Findings

- DWD: one of the tools relevant to ensure the quality of the water consumed in the EU.
- fulfils its basic purpose to enforce drinking water monitoring and its restoration in case of non-compliance
- *Areas with room for improvement:*
  1. parameters
  2. risk-based approach
  3. Article 10/contact materials
  4. information to consumers

# Evaluation Findings Materials/Article 10

- Burden: non-recognition of national approval systems
- National multiple testing and approval: obstacle to the internal market
- Burden originates in the DWD Article 10 which permit too much legal flexibility
- Article 10 represent a long term challenge

# Revision Drinking Water Directive

Included in Commission Work Programme for 2017  
COM(2016)710 final as part of the Circular Economy package

Project Ongoing:

- - WHO-EC Cooperation on Drinking Water Parameters (Stakeholder Consultation took place in September 2016)

Study info on: <https://circabc.europa.eu/w/browse/94aa2cb9-0daf-450f-a601-e6c76fbc8c17>

Preparation for the Revision, Studies finalised:

- Impact Assessment Study (including a 'materials' option)

<https://bookshop.europa.eu/en/study-supporting-the-revision-of-the-eu-drinking-water-directive-pbKH0217365/>

- Technical study on Materials/Products in Contact with Drinking Water

<https://bookshop.europa.eu/en/support-to-the-implementation-of-the-dw-directive-pbKH0417370/>

# "Materials" Study Results (1)



- Trend towards more plastic pipes
- Evidence for a trend to lower quality products (not to a higher risk)
- Testing needed, also for small products
- Components such as “o” rings and seals lead to enhanced microbial growth, that can spread to other more inert materials
- Organoleptic effects, taste, and odour are the most important water quality impacts
- *Market/Economic Impact confirmed*
- *No clear evidence for significant health or environmental effects*

## "Materials" Study Results (2) ☹️

- Study aim: to identify "Products in scope" for a possible EU regulation/harmonisation:
- Study result: Not possible – materials based approach suggested
  - Issues are not dependent on product type, but are dependent on the specific substances/materials used within each product
  - Approach based on assessment by substance/material type, rather than product type, is most appropriate.
- CPR REGULATION (EU) No 305/2011 (Annex I 3.e) and COMMISSION DECISION (2002/359/EC) Annex I/II refers to Products and Conformity attestation procedure 1+ (approved certification body)

# "Materials" Study Results (3)



*Harmonised Test Standards are available:*

*Example Organic Materials:*

**EN 12873** series *Influence due to migration (test method),*

- EN 15768 GC-MS Screening, identification of water leachable organic substances

**EN 16421** *Enhancement of microbial growth (EMG): 3 Tests under analysis by the EMEG Group*

**EN 1420** *Determination of odour and flavour assessment of water in piping systems (TON & TFN),*

- EN 1622 Water quality - Determination of the threshold odour number (TON) and threshold flavour number (TFN)<sub>8</sub>



# "Materials" Study Results (4)



*Harmonised Test Standards are available*

***Pass/Fail Criteria (Acceptance Levels) missing***

*Example: **EN 1420** Possible Acceptance Levels:*

*Domestic installation (ID < 80 mm): **TON ≤ 8.0 ???***

*Mains and service piping (80 mm < ID): **TON ≤ 2.0 ???***

*=> drinking water free from odour due to tested products*

# Materials Study Results (5) Inception Impact Assessment

Baseline and 4 options – open for discussion

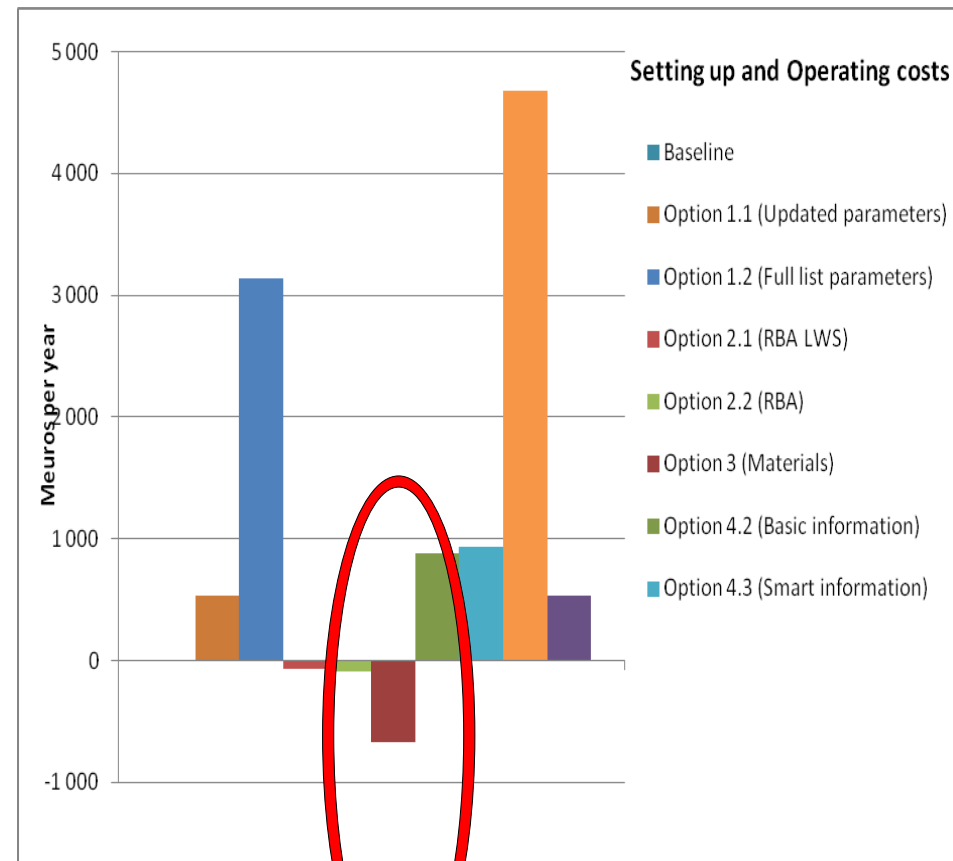
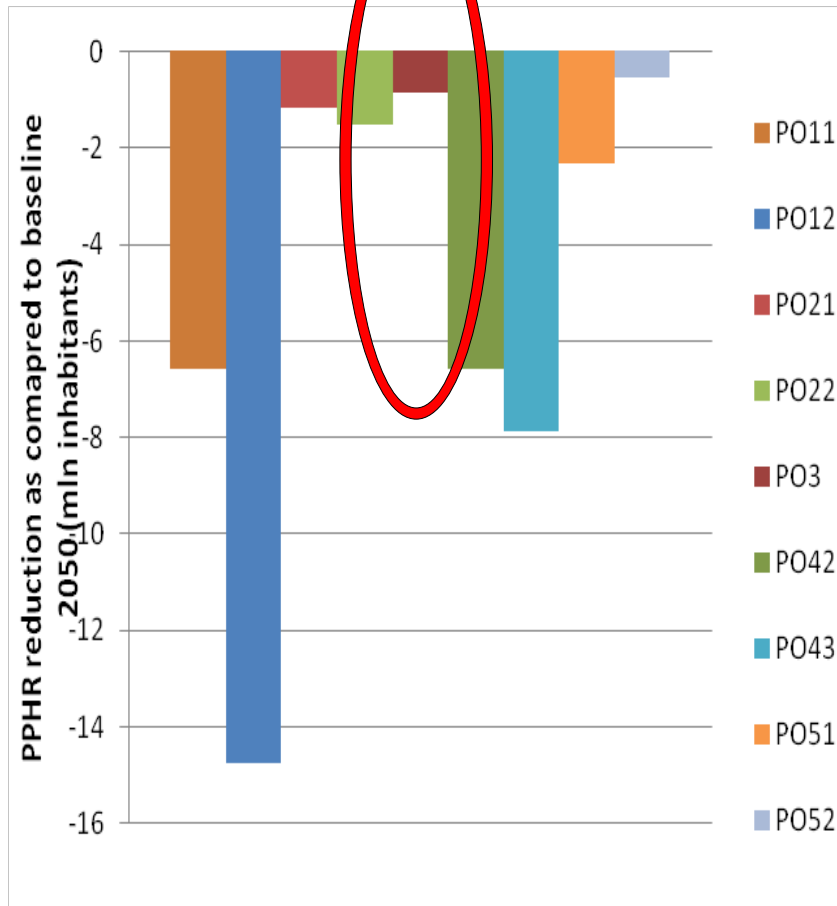
## DWD Impact Assessment Study



















**Option 3 - EU harmonized standards for materials and products in contact with drinking water**

High-level analysis according to the Impact Assessment methodology of this study, Assumptions:

- 5 % reduction of contamination
- Less odour and taste – less bottled water consumption (- additional 6 %)
- Economics from Panteia Study

# Impacts assessed



	PO1.1 (updated list)	PO1.2 (long list)	PO2.1 (RBA for LWS)	PO2.2 (RBA for LWS and SWS)	PO3 (materials)	PO4.2 (basic online information)	PO4.3 (SMART information)	PO5.1 (water for all- PWS)	PO5.2 (water for all – self)
<b>HEALTH IMPACT</b>	<b>Medium</b>	<b>Large</b>	<b>Small</b>	<b>Small</b>	<b>Small</b>	<b>Medium</b>	<b>Medium</b>	<b>Small</b>	<b>Small</b>
Population at potential health risk at short and mid-term (%change in total PPHR to BL)	-33%	-74%	-6%	-8%	-4.2%	-33%	-39%	-12%	-2.8%
Population at potential health risk at long term (%change in marginal risk population to BL)	-3%	-15%	0%	-1%	0%	-5%	-6%	0%	0%
<b>ECONOMIC IMPACT</b>	Small	Large	Savings	Savings	Large			Large	Small
Change in annualized costs	535	3 137	-74	-93	-669	876	934	4678	530
Impact on SMEs and R&D	Small (+)	Medium (++)	No impact	No impact	Small (+)	Small (+)	Small (+)	Large (+++)	Medium (++)
Internal market and macro-economic impact	Small (+)	Medium (++)	Small (+)	Small (+)	Large (+++)	No impact	No impact	Large (+++)	Medium (++)
Change in employment	4 419	24 378	-502	-873	6 957	1 678	2 055	67 152	28 301
Change in health cost	-68	-152	-14	-17	-14	-80	-91	-27	-9
<b>SOCIAL IMPACT</b>									
Change in costs per household (Eur per year)	2,3	13,6	-0,3	-0,4	2,1	2,3	1,4	21,9	2,2
Affordability (share of income spent on DW)	0,92%	0,97%	0,91%	0,91%	0,93%	0,92%	0,92%	1,08%	0,93%
Confidence in water quality	Small (+)	Small (+)	Medium (++)	Medium (++)	Medium (++)	Medium (++)	Large( +++)	Large( +++)	Large( +++)
<b>ENVIRONMENTAL IMPACT</b>									
Water quality	Small (+)	Medium (++)	Medium (++)	Medium (++)	Medium (++)	Medium (++)	Medium (++)	Medium (++)	Medium (++)
Treating pollution at source	Slightly increase	Increase	Increase	Increase	No change	Increase	Increase	more	More
Importance of water treatment	Slightly increase	Increase	Decrease	Decrease	No change	Decrease	Decrease	more	More
Energy use	Small (+)	Medium (++)	Energy savings	Energy savings	No change	Small (+)	Small(+)	No change	Moderate (++)
<b>IMPLEMENTABILITY</b>									
Reduction of Adm. burden	No change	No change	Moderate	Medium	High (---)	Low (++)	Low (++)	No change	No change
Feasibility	High	Medium	High	Medium	Medium	High	Medium	Low	Medium
<div> <div>Health</div> <div>Economic</div> <div>Env.</div> <div>Social</div> <div>Administrative</div> </div>									
<b>OVERALL RANKING</b>									

## Materials Option 3

Ranking: Results overall positive: Considered in Combination/Policy Package

Implementation: under CPR as *product standardisation already under development?*

## Next Steps DWD Revision

*Finalisation WHO-EC Cooperation on Drinking Water Parameters in Summer 2017*

*Study info on: <https://circabc.europa.eu/w/browse/94aa2cb9-0daf-450f-a601-e6c76fbc8c17>*

*Feedback to the IA Study and Materials Study?*

*Feedback to official DWD Revision Roadmap?*

*Internal:*

- **Draft Impact Assessment to Regulatory Scrutiny Board**
- **Inter-Service Consultation**

*Commission Proposal with accompanying Impact Assessment scheduled for end 2017*

Comments to:

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