

WGC BREF

**ZCHFP - Association of Chemical and Pharmaceutical
Industry of the Slovak Republic**

Liptovsky Jan, September 26, 2018

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Agenda



- The BREF Process
- BREFs for the chemical industry
- WGC BREF
 - A brief introduction
 - Timeline
 - What's currently going on
 - Update on Site Visits
 - Data collection
- Group discussion/questions.....

The BREF Process



Industrial Emissions Directive

IED 2010/75/EU



- Successor of the IPPC (Integrated Pollution Prevention Control) Directive (→ first set of BREF 2002-2008, non binding)
- Adopted Nov 24th, 2010
- Covers some 50.000 installations across Europe
- E.g. : Chemicals, Power Plants, Cements, Glass, Rearing of Animals, Car/Metal industry, waste treatment/incineration, Refineries.....
- Goal is a “level playing field” across all European countries
- Defines BATs (Best Available Techniques) and BAT-AELs (Associated emission levels), compiled in 33 BREFs (BAT Reference Documents).
- About 20 BREFs are affecting aspects of the chemical industry
- BAT/BAT-AELs are the basis for permits across Europe
- AELs are **binding**, BATs are “neither prescriptive nor exhaustive”
- A BREF consists of 500-1000 pages / process takes about 3-8 years

BREF Process



European Commission

IED Industrial Emission Directive

2010/75/EU

DG ENVI

(Environment Directorate General)

JRC

(Joint Research Center)

EIPPCB (Sevilla)

(European Integrated Pollution
Prevention Control Bureau)

TWG (Sevilla)

(Technical Working Group)

Industry

Countries

NGOs

BREF Final
Draft

Art. 13 Forum
(Bruxelles)

Industry

Countries

NGOs

Opinion

Implementation
into national law

Publication by
EU COM

Art. 75 Committee
(VOTE)

Countries

Complex, multistep and technical process involving all parties

Overview of BREFs related to Chemicals



Nine “chemical” BREFs

LVIC
Large Volume
Inorganic
Chemicals
AAF and S

LVOC
Large Volume
Organic
Chemicals

CAK
Production of
Chlor-Alkali

CWW
Common Waste
Water and
Waste Gas
Treatment

SIC
Specialty
Inorganic
Chemicals

OFC
Other Fine
Chemicals

WGC
Waste Gas
Treatment in
the Chemical
Sector

POL
Production of
Polymers

Also relevant for Cefic

LCP
Large
Combustion
Plants

WT
Waste
Treatment

WI
Waste
Incineration

ICS
Industrial
Cooling
Systems

ENE
Energy
Efficiency

TXT
Textiles

ROM
Ref. Report on
Monitoring

STS
Surface
Treatment with
Solvents

REF
Mineral Oil and
Gas Refining

EFS
Emissions From
Storage

ECM
Economics and
Cross Media
Effects

SA
Slaughterhouses
and Animal
Carcasses

HAZBREF
(BREF Project)

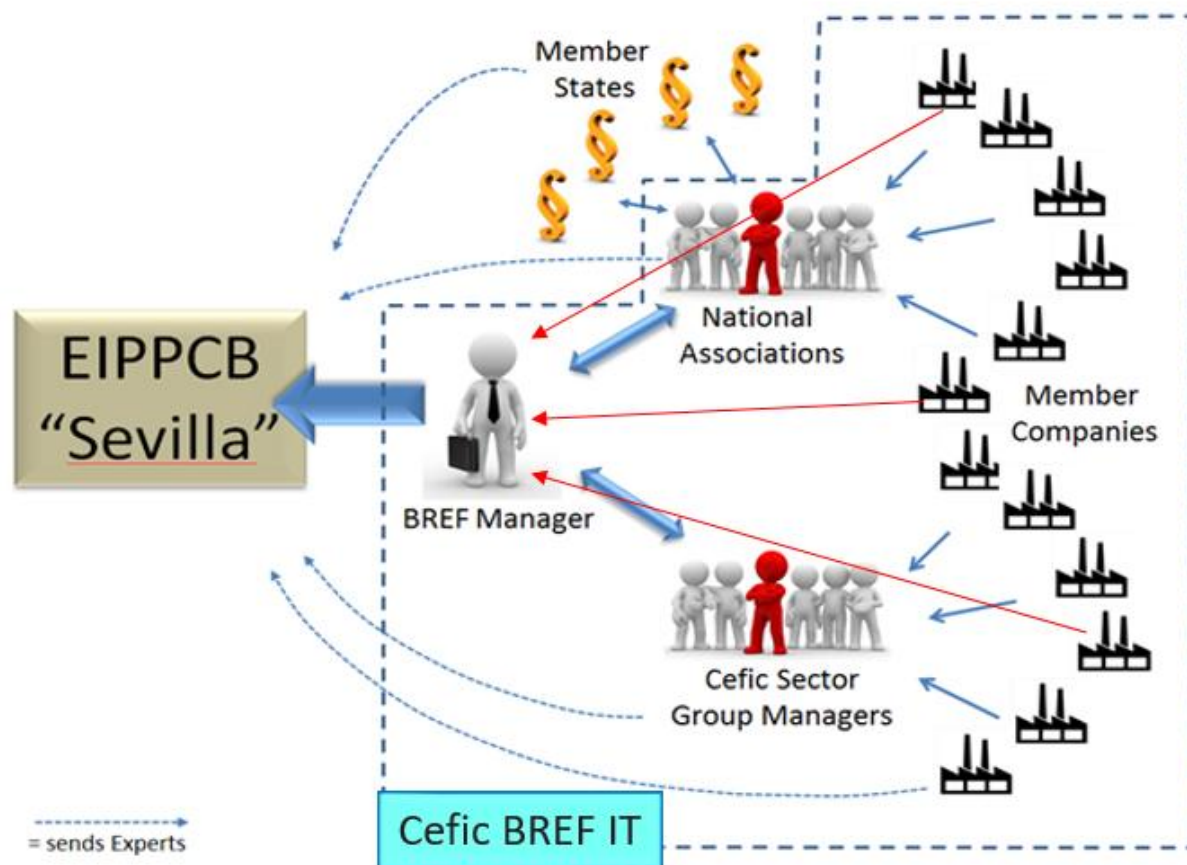
HC
Ref. BREF on
Hydrocarbons

Why is it so crucial to be active?



- BAT-AEL in BAT Conclusions will be binding for permits:
 - Emission Limit Values in permits cannot be higher than BAT-AEL, derogations are very hard to justify under IED
 - You cannot fix at permit level what went wrong at BREF level
- BREF process moves on, with or without your input:
 - If you do not get organised early in the process you will not be able to provide high quality input within the tight deadlines
 - If you miss a deadline you will not get a second chance
 - If you do not provide data then somebody else probably will
 - If you do not speak up at Technical Working Group (TWG) meetings your position will not be noticed (despite any prior written input)
- And most importantly: The BREF process is technical and relies on your knowledge and expertise!

Sevilla Process A Team Effort



BREF IT		Status July 31, 2018
		Total: 106 members
Associations	Companies	Federations
ANFFECC	Albermarle	APQuimica (PT)
BSEF	Ashland	CIA (UK)
CIRFS	Aurubis	Essencia (BE)
ESIG	BASF	FCIO (AT)
EuroChlor	Bayer	Federchimica (IT)
ECVM	Borealis	FEIQUE (ES)
Fert. Europe	BP	IKEM (SE)
FETSA	Cabot	KT ry (FI)
GME	Celanese	PIPC (PL)
ISOPA	Covestro	SCHP (CZ)
Norsk Industri	Currenta	Scienceindustries (CH)
Orgalime	Ciech Soda	UIC (FR)
Plastics EU	Dow	VCI (DE)
	Evonik	VNCI (NL)
	ExxonMobil	ZCHFP (SK)
	Fluorchemie Dohna	
	Ineos	
	Innovyn	
	Kehlheim Fibres	
	Lenzing	
	Lucite	
	Lyondell	
	MOL Group	
	Merck	
	Repsol	
	Sabic	
	Shell	
	Solvay	
	Total	
	Versalis	
	Wacker	
	YARA	
13	32	15

Do you find your company on the list?

WGC BREF



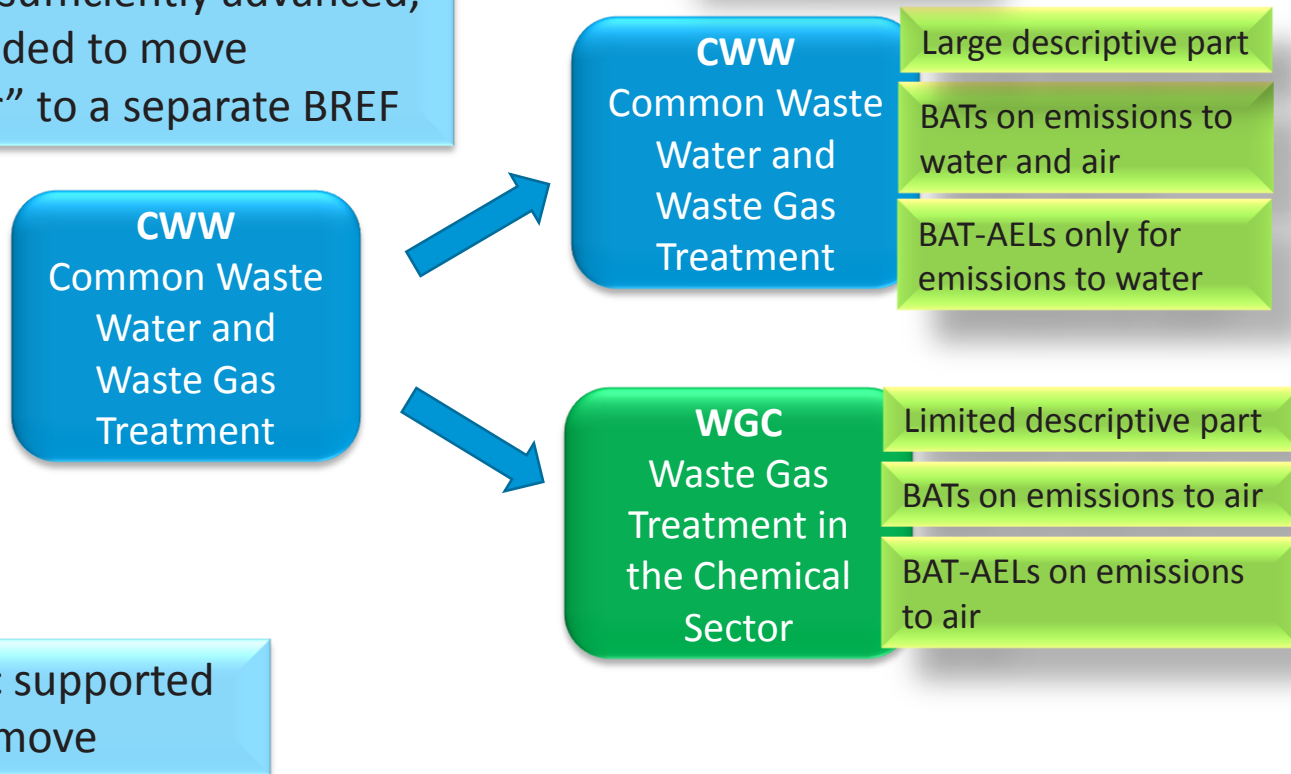


WGC BREF - brief history

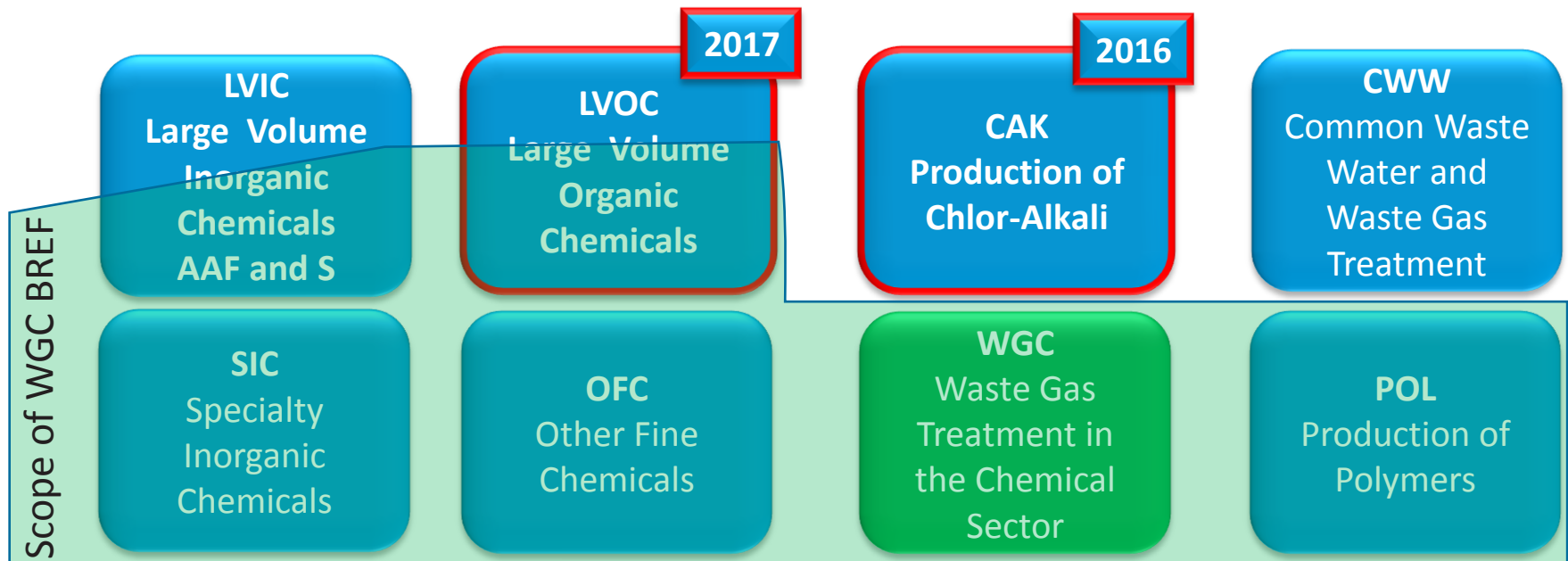
Review of the CWW BREF started in 2007

In 2015, when the “water-part” of the CWW BREF was sufficiently advanced, the DG ENV decided to move “emissions to air” to a separate BREF

Issued June 2016



The WGC is intended to cover (replace?) several chemical BREFs



All BREFs:

WGC **covers diffuse** emissions

LVOC BREF:

WGC **ex**cludes channeled emissions of Processes with AELs

LVIC BREF:

WGC includes LVIC processes **unless** specifically **excluded**

EFS BREF:

Emissions from Storage included for tanks associated to production

The WGC BREF will cover the majority of chemical installations

WGC: Key Environmental Issues IN Scope



Carbon monoxide (CO)

Nitrogen Oxides (NO_x)

Dust (including fine particulate matter PM₁₀ and PM_{2.5})

TVOC (NMVOC, TOC, VOC)

Sulphur Oxides (SO_x)

Nitrous oxide (N₂O)

Gaseous Chlorides (expressed as HCl)

Elementary chlorine (Cl₂)

Ammonia (NH₃)

Tetrachloromethane (CCl₄)

Benzene

Formaldehyde

Chloromethane

Dichloromethane

Trichloromethane

Lead and its compounds (as Pb)

Nickel and its compounds (as Ni)

PCDD/Fs (dioxins + furans)

Hydrogen cyanide (HCN)

Vinyl chloride monomer (VCM)

Ethylene dichloride (EDC; 1,2-dichloroethane)

Toluene

Gaseous Fluoride (expressed as total F)

Ethylene oxide

Propylene oxide

Carbon disulphide (CS₂) (only Viscous production)

Hydrogen sulphide (H₂S) (only Viscous production)

1,3-Butadiene

Key Environmental Issues NOT in Scope



All CMR substances as a group

Other harmful organic substances as a group

Non-CMR halogenated organic compounds as a group

Arsenic and its compounds (as As)

Cadmium and its compounds (as Cd)

Polycyclic aromatic hydrocarbons (PAHs),

Hexachlorbenzene (HCB)

Mercury and its compounds (as Hg)

Carbon Dioxide (CO₂)

Methane (CH₄)

Hydrofluorocarbons (HFCs)

Perfluorocarbons (PFCs)

Sulphur hexafluoride

Chlorofluorocarbons (CFCs), Hydrochlorofluorocarbons (HCFCs)

Halons

1,1,1-Trichloroethane (CH₃CCl₃)

Trichloroethylene

Tetrachloroethylene

Di-(2-ethyl hexyl) phthalate (DEHP)

Naphtalene

Phenol

Acetic acid

Methanol

Halogens and their compounds

Hydrogen bromide (HBr)

Metals class I (mercury, thallium, and their compounds)

Metals class II (lead, cobalt, nickel, selenium, tellurium and their compounds)

Metals class III (antimony, chromium, copper, manganese, vanadium, tin and their compounds)

Zinc and its compounds (as Zn),

Phosphates

Acrylnitriles

Amines, Isocyanates

Timeline WGC BREF



Timeline before September 2018



- Early 2015: Cefic WGC BREF team established
- October 2015: Art. 13 Forum agrees on the WGC BREF
- July 2016: Cefic team meets BREF authors in Sevilla
- September 2016: JRC establishes TWG
- January 2017: Call for Initial Positions
- Sept 2017: Kick Off Meeting
- March 2018: Interim TWG

Crucial topic for 2018 – Data Collection



European
Commission

Next steps – Questionnaire development and data collection

- EIPPCB to issue the 2nd draft questionnaire by **30/03/2018**.
- TWG to review and comment on the 2nd draft by **11/05/2018**.
- EIPPCB to issue the final draft questionnaire by **08/06/2018**.
- Testing by selected installations and feedback by **06/07/2018**.
- EIPPCB to issue the questionnaire by **27/07/2018**.
- TWG to return the filled-in questionnaires after careful quality check by the MSs by **21/12/2018**.

We are here

Timeline after 2018 – cautious guess



- Q1 2019: Workshop on data collection
- Q2/3 2019: Draft 1 WGC to be issued (D2 possible)
- Q4 2019: Workshop on Draft 1
- Q2 2020: Final Meeting
- 2021: WGC BREF to be issued
- (end of 2019: potential start of LVIC BREF)

What's currently going on?

→ Site Visits





Why site visits?

- Part of the BREF Process
- Show and explain the plants, processes and explain opportunities, challenges and limitations „in real life“.
- The BREF process is technical and relies on knowledge and expertise!
 - E.g. BREF authors are usually not familiar with the processes
 - TWG experts do not know all processes/production/products involved in a BREF
 - Intensify the exchange of information with other TWG members (most notably: competent authorities)

Site visits in 2017: Spain, Belgium, Germany

Site Visits Portugal 2018 Organised by APQuimica



19.Sept 2018



ShinEtsu

PVC Unit
Rua de Cires, 3860-160 Avanca

20.Sept 2018



BONDALTI
EVOLVING CHEMISTRY

Formerly: CUF
Anilin-Nitrobenzene and other
units, Rua do Amoniaco
Portugues, 3860-680 Estarreja

18.Sept 2018



Sulfonated Products/Detergents
Villa Nova de Rainha



Participants BREF IT:

Drees	Cefic
Gomes	APQuimica
Hoestmark	Orgalime
Sevenster	ECVM

Site Visits Spain 2018

Organised by Spanish Ministry



Company		Location	Production processes
FERRO SPAIN	22.Oct	Almassora, Castellón	Complex inorganic colour pigments (CICPs)
ITACA S.A.	23.Oct	Puebla Tornos, Castellón	Complex inorganic colour pigments (CICPs)
MAXAM	24.Oct	Páramo de Masa, Burgos	Explosives: dynamites, hydrogels, pentrita, nagolita
BASF	25.Oct	Guadalajara	Paints and resins

Participants BREF IT:

Breva	ANFFECC
Castrillo	Feique
Celades	ANFFECC
Drees	Cefic
Moritz	BASF
Marin	Feique
Wiechmann	VCI



Site Visits Austria 2018

Organised by Austrian Umweltbundesamt*



Participants BREF IT:

Drees	Cefic
Luo	Lenzing
Reinold	Evonik
Thayer	FCIO
Wiechmann	VCI

What's currently going on?

→ Data collection

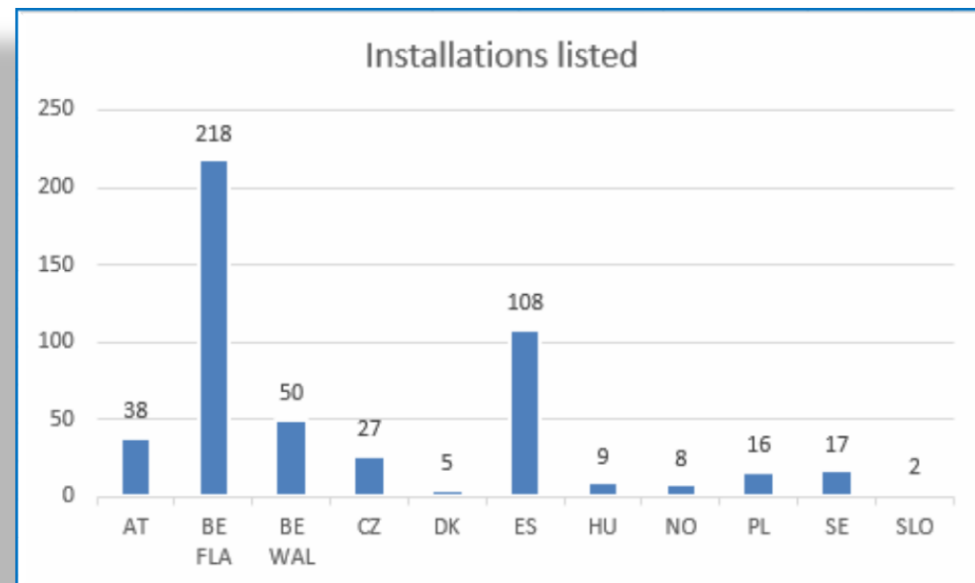


Status update Associations



- In general: good cooperation between national federations and competent authorities
- Very little disagreement on reference plants
- Constraints on resources limit number of ref plants (e.g. FR)
- Cefic gets continuous feedback from 14 federations*
- (AT, BE, CZ, DE, ES, FI, FR, IT, NL, PT, SE, SK, SLO, UK)
- Training sessions in several countries
- Ten Members States have posted their lists on Batis so far

* Based on e-PRTR this equates to 90% of all EU-sites



Summary



Main Statements WGC BREF



- The WGC BREF is the most important BREF for us
- WGC will cover the majority of chemical installations in Europe
- WGC might replace other BREFs
- Good cooperation between national federations and competent authorities
- Good cooperation between Cefic and the DG ENV/EIPPCB
- Data collection is ESSENTIAL. **Your** participation and input is crucial

Backup



Status of the data collection by Member State

Current Status in Member States

Austria (100 IED* Installations)



UBA in AT has conducted studies at e.g. LVIC/LVOC, OFC, SIC and POL units in 2016/17.

Based on these studies the UBA intends to fill out the Qs, and then send the Qs to the companies.

The UBA has also prepared a list of all units reporting into e-PRTR (except the LVICs that were excluded by the TWG) and contacted the respective companies, endorsing their participation.

If all respond, AT will provide up to 40 reference plants

UBA expects feedback from companies by the end of Nov. 2018.

* IED units mentioned in this and the subsequent slides are only “chemical installations” falling under chapter 4, Annex I IED

Current Status in Member States

Belgium

(Flandres: 246 IED installations, Wallonie 42 IED sites)



Updated
Aug 28th

Timeline:

- Q distributed on August 8th via nat.association essenscia
- organize a NL info session on Sept 13th
- organize a FR info session on Sept 19th
- deadline for submission by companies is November 23rd

The setup is :

- essenscia invited the companies to complete the Q, collect the completed Q and upload those completed Q onto a SharePoint that was set-up by the competent authority
- the comp auth may (or may not) perform a quality check on those completed Q

Current Status in Member States Finland (approx. xxx IED installations)



Updated
Aug 28th

- Cooperation between KT Kemianteollisuus (Finnish Chemical Federation) and Syke (Finnish competent authority)
- So far one company is foreseen providing reference unit(s)

Current Status in Member States France (approx. 444 IED installations)

Updated
Aug 29th

- UIC (with Authorities) has finalized a list of installations
- Targeting approx. 50 reference plants = met
- Goal was to have a variety of specific processes ~ met
- Authorities has sent the questionnaire (with the manual) to these ~ 50 plants on July 30th
- 2 workshops planned in Paris (Authorities, UIC, Operators): Sept 11th and Oct 18th
- Other supports :
 - Q&A (by INERIS) on UIC website, intended by Sept 11th
 - Possible confcalls or “customer service” by INERIS
- Filled questionnaires to be returned on Nov 23rd then to be checked by Authorities before sending to the Bureau

Current Status in Member States Germany (2010 installations)



Updated
Aug 28th

- Meeting of VCI delegation, Cefic and UBA in Berlin May 4th.
- BVT Working Group of the VCI will compile a suggestion of installations based on the input of the companies.
- UBA in DE will receive this FYI.
- VCI translate the manual into German, held a number of workshops and prepared some videos how to fill in the Q.
- German UBA has set up a cloud onto which all Q's will be uploaded.
- VCI does not intend to produce a list of units but urges ALL installations in Germany to participate.
- Currently a number of plants fill out the Q. And therefore a lot of questions arise which should be answered step by step.
- The filled Q should be checked by the competent authorities. Deadline for fill out is 15th of October and for checking the Q the 1st of December.

Current Status in Member States Italy (387 IED sites)



Updated
Aug 28th

- Data collection:
 - “Test Questionnaire” distributed in June
 - Final Questionnaire and associated files circulated end of July
 - Compilation requested by October 22 (to consider the possibility of discussion of available results, also interacting with National Authority)
 - Planned deadline for Questionnaires: end November
- Indication of reference plants:
 - In progress (some indications already expressed)
 - A first assessment planned in October
 - Number of proposed reference plants not yet defined

Current Status in Member States The Netherlands (approximately 30 companies, 50 IED sites, > 100 installations)



Updated
Aug 28th

- Workshop on data collection scheduled for September 17, including
 - Explanation questionnaire
 - Feedback from the first questionnaire try outs
 - Discussion on how to improve consistency and quality of the data
- Final list verification is taken up by authorities
- > 50% responses (15 companies, 30 IED sites), final reminder call this week (about 10 different companies)
- Q&A section on the VNCI website in preparation → various questions received on the scope
 - Storage in tank terminals, diffuse emission
 - WGC BREF vs SCP (Specific Chemical Processes) BREF (Horizontal vs Vertical BREF)
- Areas of concern: response/degree of participation, confidential of the data, time schedule, level of detail.

Current Status in Member States

Portugal (approx. 40 IED units)



Updated
Aug 29th

- Comparing with other countries, in Portugal there are few IED chemical plants. So, all companies/installations that have an IED permit up-to-date, are in operation and are in the scope of the WGC BREF were contacted, to give them the opportunity to participate in the data collection by completing the questionnaire.
- A small number of installations that currently don't have their environmental permit process up-to-date were not contacted to fill in the questionnaire because the Portuguese authority (APA) could not subsequently validate the questionnaire due to the lack of information in the permit process.
- APQuímica (the Portuguese chemical industry association) were in close cooperation with APA relating to the list of companies/installations contacted.
- The companies/installations received the final version of the questionnaire in mid August. APA agreed to share the companies to contact. APQuímica contacted their members and APA contacted the other companies.
- The companies were asked to complete the questionnaire until 19 October, in order to allow APA sufficient time to validate the information. As time goes by it will be seen whether there will be a need to extend this deadline. APQuímica will provide help to their members in order to attempt to obtain as many completed questionnaires as possible.
- The list of companies/installations that were contacted (including some information about their activities) will be shared with Cefic (in order to check more easily which sectors were contacted).
- Currently Cefic was provided with a draft list (not the final list) which is not public yet.

Current Status in Member States Slovenia (approx. 26 IED Installations)

Updated
Aug 29th

ZKI has prepared a list of installations in the chemical sector based on the list of IED installation in Slovenia, that is publicly accessible (approx. 26 IED installations in the chemical sector)

ZKI has also prepared a list of all units reporting into e-PRTR (15 installations in the chemical sector)

Current Status in Member States Spain (approx. 402 IED installations)

Updated
Aug 29th

- Timeline:
 - **2017-2018:** 7 monographic meetings FEIQUE-Ministry of Environment to coordinate actions.
 - **6 July 2018:** 3 plants have tested the questionnaire (comments sent to the EIPPCB by Spain).
 - **20 July 2018:** FEIQUE has sent to CEFIC the list of the 48 Spanish sites that will participate in the data collection. The list has also been published in BATIS (the list is expected to be updated in September).
 - **27 July 2018:** FEIQUE has sent the final questionnaire to operators.
 - **13 September 2018:** workshop on questionnaire (authorities-operators-FEIQUE).
 - **27 September 2018:** deadline to fill out the questionnaire. Operators will send the questionnaire to the Ministry for validation (validation by each autonomous region).

Current Status in Member States

Sweden (approx. 80 IED units)

Updated
Aug 31st

- Joint list of 17 installations was prepared by IKEM and competent authorities and posted on Batis
- Approx. 80 IED installations in the chemical sector
- The Qs have been sent out (on August 6) to the companies and last date to report to the authority is set to the 23rd of November. That way the authorities will have time to ask questions to the companies.

Current Status in Member States United Kingdom (approx. 400 IED sites)

- Regulators and CIA working towards completion of ca. 50 questionnaires
- Very little feedback from members so far
- Planning webinars to advise on completion and validation of the questionnaire (September)
- Validation during November/December
- Meeting with regulators and members next week to assess first impressions of the data collection
- Working to assess number of permits in each IED Annex I activity 1) in scope of WGC and 2) likely to submit questionnaires

Thank you !

