The PetCo Working Group and its activities

Mineral oil at the focus of consumer health protection

Berlin, 7 December 2017

Chrystèle Tissier
Classification and Prioritisation unit
ECHA

Content

- PetCo working group background, role and mandate
- Approach how to prioritise and approach PetCo UVCB substances
- Achievements so far
- Ongoing discussions

PetCo working group background, role and mandate

PetCo working group

- First meeting in March 2015 (PETCO1) with Member States only

- Since then 6 other meetings (3 per year) with both Member States and accredited stakeholders organisations
  - Concawe, CEFIC Hydrocarbon Solvent Group (HSCS), CEFIC Coal Chemicals Sector Group (CCSG), AECM (Candle makers association) and Lower Olefins and Aromatics (LOA)/ Higher Olefins & Poly Alpha Olefins (HOPA)

Mandate of PETCO WG

- **Initial aim** was to develop by the end of 2015 an approach to identify and address PetCo substances and plan the practical implementation of this approach as required by the SVHC Roadmap (link to SVHC Roadmap information: https://echa.europa.eu/addressing-chemicals-of-concern/substances-of-potential-concern/svhc-roadmap-to-2020-implementation).

- The approach has been finalised this year

  - *Approach on how to prioritise and address petroleum and coal stream UVCB substances for further work under the Roadmap for SVHC identification and implementation of REACH Risk Management Measures* (https://echa.europa.eu/petco-working-group)

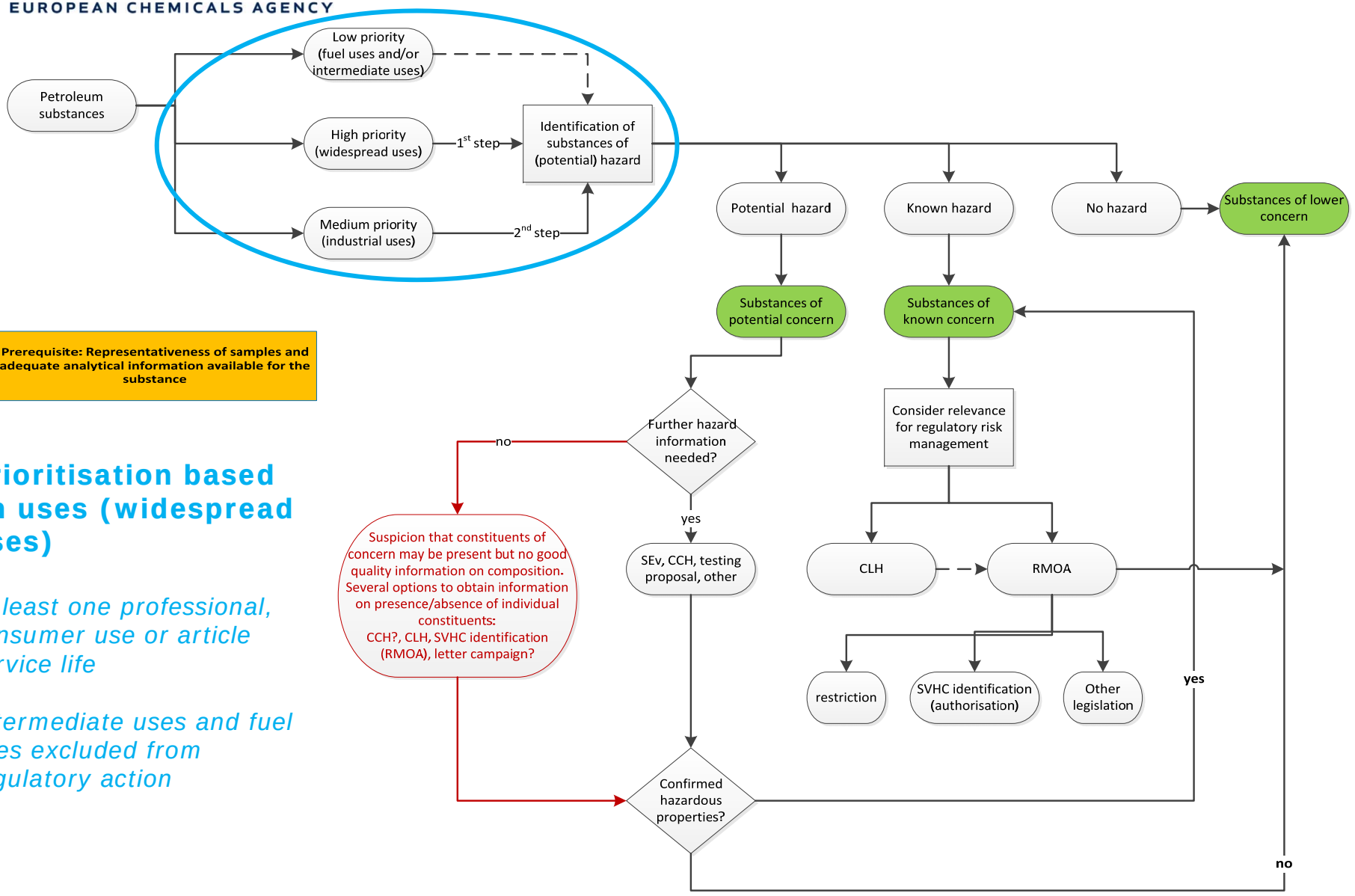
Mandate of PETCO WG

Updated mandate

- PetCo working group is a platform for exchange to ensure that the work on PetCo substances is moved forward using the developed approach as a basis and progress are made in improving the registration dossiers and further regulating PetCo substances where necessary
- The group will:
  - Apply the PetCo approach to all PetCo substances and identify substances for which further regulatory action is needed being generation of data or regulatory risk management
  - Follow up activities planned related to specific substances and specific concerns
  - Discuss and share experiences among MSCAs/ECHA/COM and stakeholders on identification, assessment and management of PetCo substances;
  - Enhance co-operation and share of the work on (groups of) substances and to avoid double work;
  - Interact with other relevant groups (e.g. RIME, PBT expert group) where needed
- One objective is to have updated registration information

Approach on how to prioritise and address UVCB PetCo substances

Approach principles

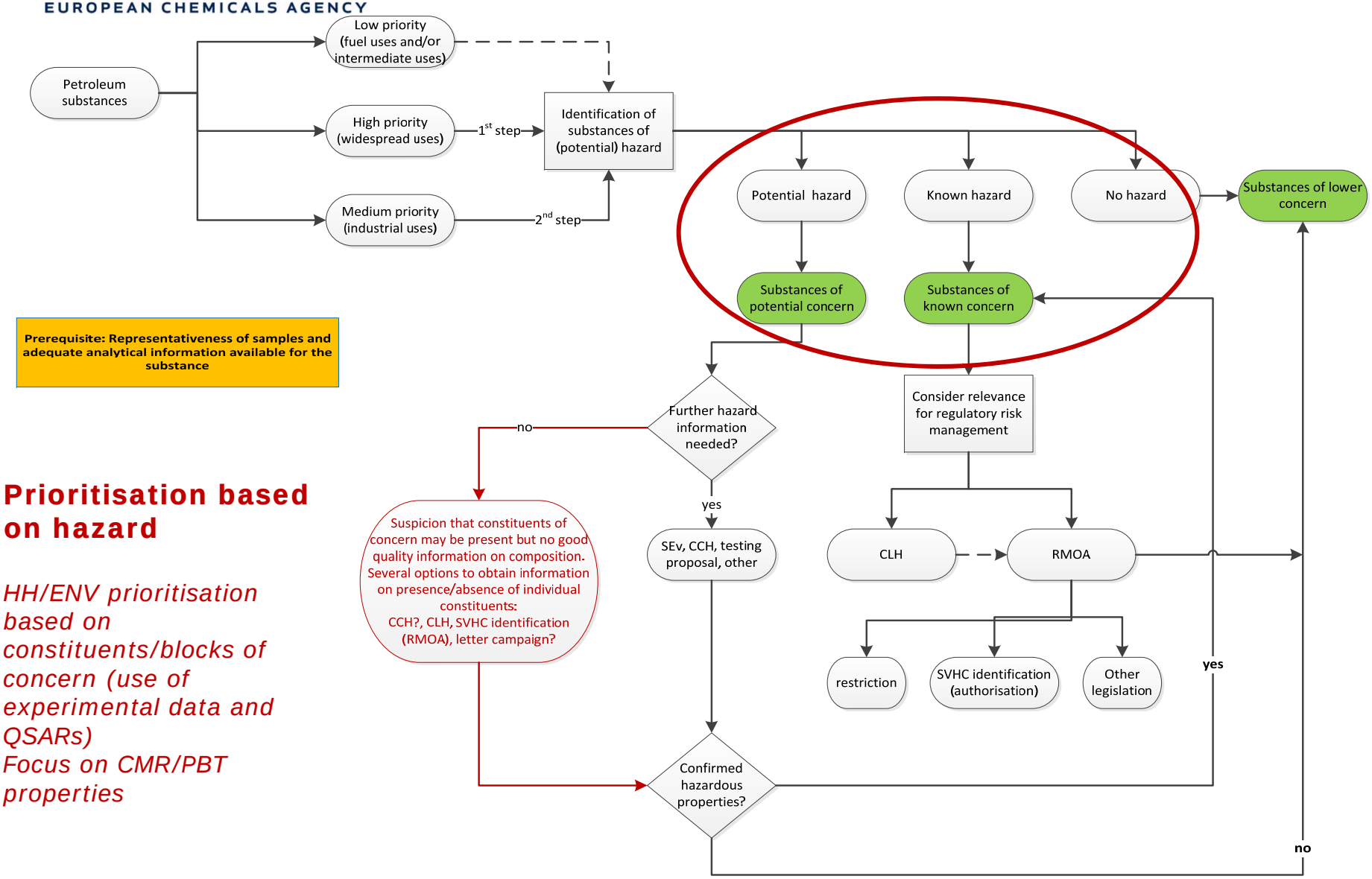


Prioritisation based on uses (widespread uses)

At least one professional, consumer use or article service life

Intermediate uses and fuel uses excluded from regulatory action

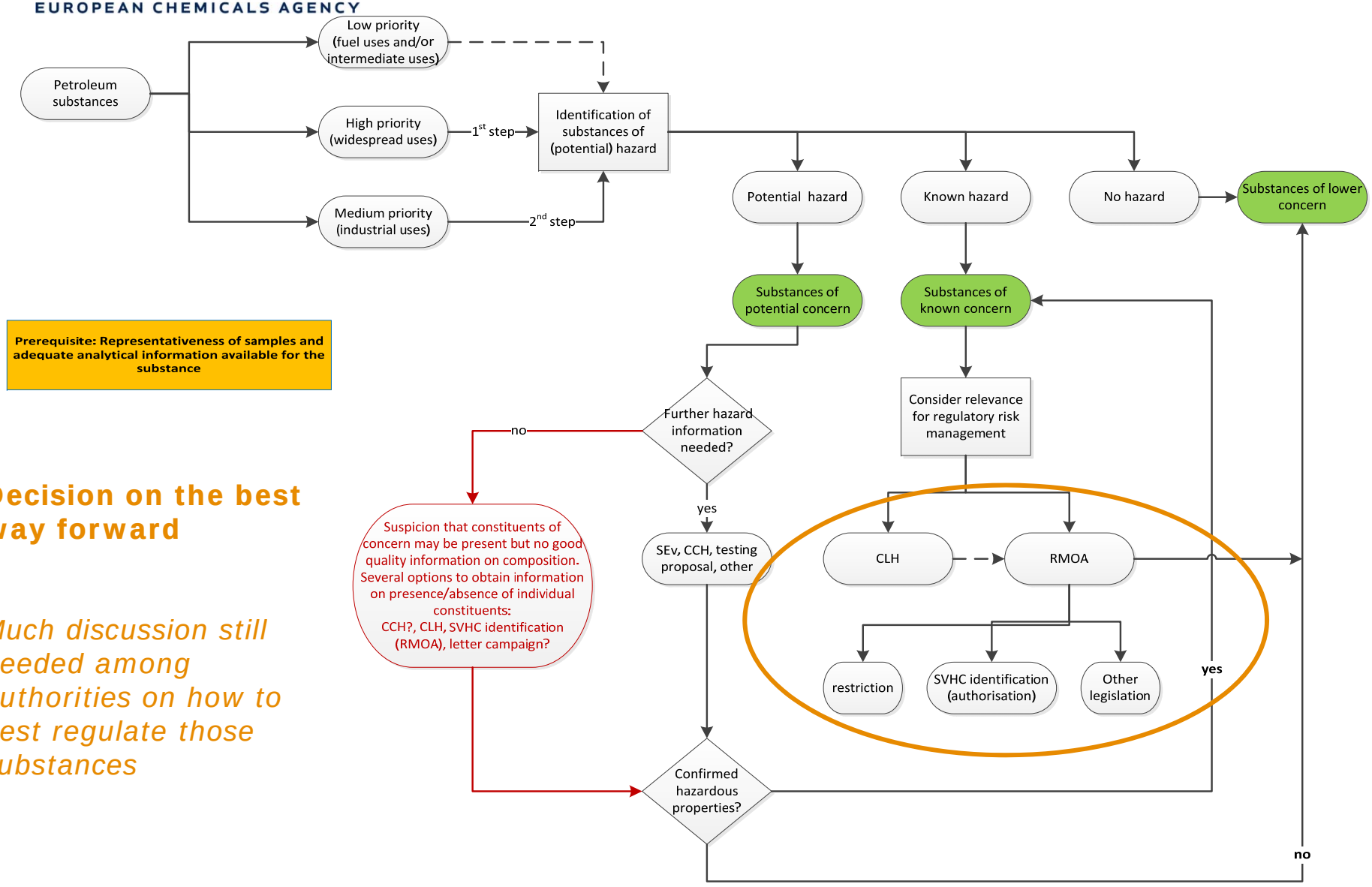
Approach principles



Prioritisation based on hazard

HH/ENV prioritisation based on constituents/blocks of concern (use of experimental data and QSARs)
Focus on CMR/PBT properties

Approach principles



Decision on the best way forward

Much discussion still needed among authorities on how to best regulate those substances

Achievements so far

Main achievements

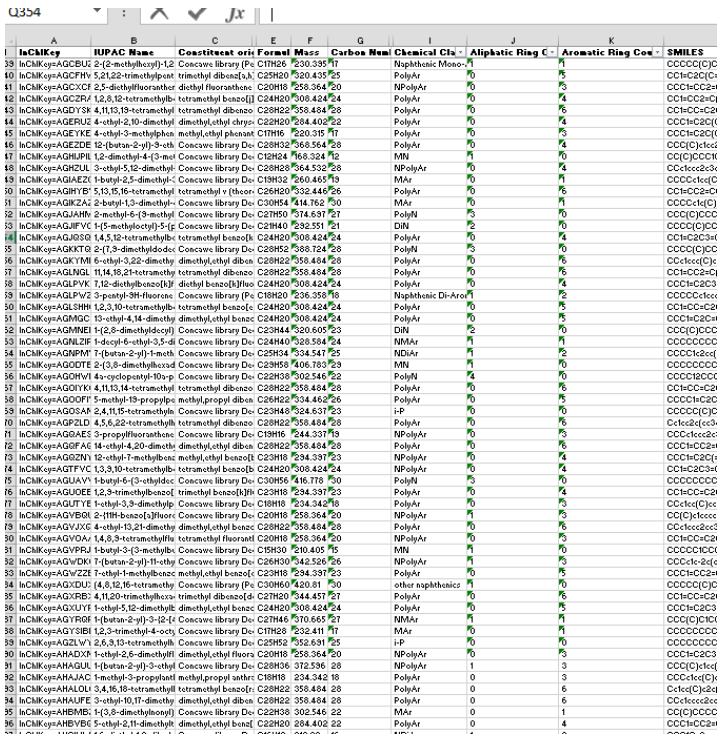
- Agreement on a way to prioritise PetCo substances for further action (**Approach paper**)
- Updated information on uses, in particular non-fuel uses, and tonnages going to each use for petroleum substances (Concawe) and hydrocarbon solvents
  - More information is to come from other organisations
  - All information will be reflected in update of registration dossiers
- An **inventory** of all substances falling under the approach is available and industry has committed itself to keeping the inventory up-to-date (PetCo inventory)
  - Substances supported by consortia
  - Orphan substances

Achievements so far

- **Implementation plans** identifying actions have been submitted by the different organisations (and agreement to publish those on ECHA website)
- **Prioritisation of substances based on hazard** finalised for petroleum substances (ENV/HH)– to be seen how this can be applied to other substances
  - Based on a library of constituents together with analytical data
  - Still some questions on the ENV side

Prioritisation overview HH

Constituent library



	A	B	C	E	F	G	I	J	K	
	InChIKey	IUPAC Name	Constituent orig	Formul	Mass	Carbon Num	Chemical Cla	Aliphatic Ring C	Aromatic Ring Cou	SMILES
39	InChIKey=AGCBUG	2-(2-methylhexyl)-1,2	Concawe library (Pe	C17H26	230.395	17	Naphthenic Mono-	1	1	CCCCC(C)C
40	InChIKey=AGCFIN	5,21,22-trimethylpent	trimethyl dibenz[a,k]	C25H20	320.435	25	PolyAr	0	5	CC1=C2C(C=
41	InChIKey=AGCXCF	2,5-diethylfluoranthene	diethyl fluoranthene	C20H18	258.364	20	NPolyAr	0	3	CCC1=CC2=C
42	InChIKey=AGCZRA	1,2,8,12-tetramethylb	tetramethyl benzo[j]	C24H20	308.424	24	PolyAr	0	4	CC1=CC2=C
43	InChIKey=AGDYSK	4,11,13,19-tetramethyl	tetramethyl dibenzo	C28H22	358.484	28	PolyAr	0	6	CC1=CC=C2
44	InChIKey=AGERU2	4-ethyl-2,10-dimethyl	dimethyl,ethyl chrys	C22H20	284.402	22	PolyAr	0	4	CCC1=C2C(
45	InChIKey=AGEYKE	4-ethyl-3-methylphen	methyl,ethyl phenant	C17H16	220.315	17	PolyAr	0	3	CCC1=C2C(
46	InChIKey=AGEZDE	12-(butan-2-yl)-9-eth	Concawe library (Pe	C28H32	368.564	28	PolyAr	0	4	CCC(C)c1cc
47	InChIKey=AGHUPIL	1,2-dimethyl-4-(3-met	Concawe library (Pe	C12H24	168.324	12	MN	1	0	CC(C)CCCC
48	InChIKey=AGHZUL	3-ethyl-5,12-dimethyl	Concawe library (Pe	C28H28	364.532	28	NPolyAr	0	4	CCc1ccc2c3c
49	InChIKey=AGIAEZ	1-butyl-2,5-dimethyl-(	Concawe library (Pe	C19H32	260.465	19	MAr	0	1	CCCCc1cc(C
50	InChIKey=AGIHYB	5,13,15,16-tetramethyl	tetramethyl v (thioor	C26H20	332.446	26	PolyAr	0	6	CC1=CC2=C
51	InChIKey=AGIKZA	2-butyl-1,3-dimethyl-	Concawe library (Pe	C30H54	414.762	30	MAr	0	1	CCCCc1c(C)
52	InChIKey=AGJAHN	2-methyl-6-(9-methyl	Concawe library (Pe	C27H50	374.697	27	PolyN	3	0	CCC(C)CCC
53	InChIKey=AGJIFVC	1-(5-methyloctyl)-5-(p	Concawe library (Pe	C21H40	292.551	21	DiN	2	0	CCCC(C)CC
54	InChIKey=AGJQSG	1,4,5,12-tetramethylb	tetramethyl benzo[k	C24H20	308.424	24	PolyAr	0	4	CC1=C2C3=C
55	InChIKey=AGKKTG	2-(7,9-dimethyldodec	Concawe library (Pe	C28H52	388.724	28	PolyN	3	0	CCCC(C)CC
56	InChIKey=AGKYMI	6-ethyl-3,22-dimethy	dimethyl,ethyl diben	C28H22	358.484	28	PolyAr	0	6	CCc1ccc(C)c
57	InChIKey=AGLNGL	11,14,18,21-tetramethy	tetramethyl dibenzo	C28H22	358.484	28	PolyAr	0	6	CC1=CC2=C
58	InChIKey=AGLPVK	7,12-diethylbenzo[a]fluo	diethyl benzo[a]fluo	C24H20	308.424	24	PolyAr	0	4	CCC1=C2C3
59	InChIKey=AGLPWZ	3-pentyl-9H-fluorene	Concawe library (Pe	C18H20	236.358	18	Naphthenic Di-Aro	1	2	CCCCCc1ccc
60	InChIKey=AGLSHH	1,2,3,10-tetramethylb	tetramethyl benzo[e	C24H20	308.424	24	PolyAr	0	5	CC1=CC=C2
61	InChIKey=AGMGCI	13-ethyl-4,14-dimethy	dimethyl,ethyl benzc	C24H20	308.424	24	PolyAr	0	5	CCC1=C2C=
62	InChIKey=AGMNEI	1-(2,8-dimethyldecyl)	Concawe library (Pe	C23H44	320.605	23	DiN	2	0	CCC(C)CCC
63	InChIKey=AGNLZIF	1-decyl-6-ethyl-3,5-di	Concawe library (Pe	C24H40	328.584	24	NMAr	1	1	CCCCCCCC
64	InChIKey=AGNPVF	7-(butan-2-yl)-1-meth	Concawe library (Pe	C25H34	334.547	25	NDiAr	1	2	CCCC1c2cc(
65	InChIKey=AGODTE	2-(3,8-dimethylhexad	Concawe library (Pe	C23H50	406.783	23	MN	1	0	CCCCCCCC
66	InChIKey=AGOHVI	4a-cyclopentyl-10a-p	Concawe library (Pe	C22H38	302.546	22	PolyN	4	0	CCCC12CC
67	InChIKey=AGOIYK	4,11,13,14-tetramethyl	tetramethyl dibenzo	C28H22	358.484	28	PolyAr	0	6	CC1=CC=C2
68	InChIKey=AGOOFF	5-methyl-13-propylpe	methyl,propyl diben	C26H22	334.462	26	PolyAr	0	5	CCCC1=C2C
69	InChIKey=AGOSAP	2,4,11,15-tetramethyl	Concawe library (Pe	C23H48	324.637	23	i-P	0	0	CCCC(C)C
70	InChIKey=AGPZLD	4,5,6,22-tetramethylb	tetramethyl dibenzo	C28H22	358.484	28	PolyAr	0	6	Cc1cc2c(cc3=
71	InChIKey=AGQAES	3-propylfluoranthene	Concawe library (Pe	C19H16	244.337	19	NPolyAr	0	3	CCCc1ccc2c=
72	InChIKey=AGQFAC	14-ethyl-4,20-dimethy	dimethyl,ethyl diben	C28H22	358.484	28	PolyAr	0	6	CCC1=CC2=C
73	InChIKey=AGQZNY	12-ethyl-7-methylbenz	methyl,ethyl benzo[b	C23H16	294.397	23	NPolyAr	0	4	CCC1=C2C(=
74	InChIKey=AGTFVC	1,3,9,10-tetramethylb	tetramethyl benzo[b	C24H20	308.424	24	NPolyAr	0	4	CC1=C2C3=C
75	InChIKey=AGUAVY	1-butyl-6-(3-ethyldec	Concawe library (Pe	C30H54	416.778	30	PolyN	3	0	CCCCCCCC
76	InChIKey=AGUOEE	1,2,3-trimethylbenzo[	trimethyl benzo[kl]fl	C23H16	294.397	23	PolyAr	0	4	CC1=CC=C2
77	InChIKey=AGUTYE	1-ethyl-3,9-dimethylp	Concawe library (Pe	C18H18	234.342	18	PolyAr	0	3	CCc1cc(C)cc
78	InChIKey=AGVBQL	2-(1H-benzo[a]fluore	Concawe library (Pe	C20H18	258.364	20	NPolyAr	1	3	CC(C)c1cccc
79	InChIKey=AGVJXG	4-ethyl-13,21-dimethy	dimethyl,ethyl benzc	C28H22	358.484	28	PolyAr	0	6	CCc1ccc2cc3
80	InChIKey=AGVOAJ	1,4,8,9-tetramethylflu	tetramethyl fluoranth	C20H18	258.364	20	NPolyAr	0	3	CC1=CC=C2
81	InChIKey=AGVPRJ	1-butyl-3-(3-methylbu	Concawe library (Pe	C19H30	210.405	15	MN	1	0	CCCC1CCC
82	InChIKey=AGWDKI	7-(butan-2-yl)-11-ethy	Concawe library (Pe	C26H30	342.526	26	NPolyAr	1	3	CCCc1c-2c(c
83	InChIKey=AGWZZE	7-ethyl-1-methylbenzo	methyl,ethyl benzo[c	C23H16	294.397	23	PolyAr	0	5	CCC1=CC2=C
84	InChIKey=AGXDUS	(4,8,12,16-tetramethy	Concawe library (Pe	C30H60	420.81	30	other naphthenics	1	0	CCCCC(C)C
85	InChIKey=AGXRBS	4,11,20-trimethylhexa	trimethyl dibenzo[de	C27H20	344.457	27	PolyAr	0	6	CC1=CC=C2
86	InChIKey=AGXUYF	1-ethyl-5,12-dimethylb	dimethyl,ethyl benzc	C24H20	308.424	24	PolyAr	0	5	CCC1=C2C3
87	InChIKey=AGYRQF	1-(butan-2-yl)-3-[2-(1	Concawe library (Pe	C27H46	370.665	27	NMAr	1	1	CCC(C)C1CC
88	InChIKey=AGYSIB	1,2,3-trimethyl-4-octy	Concawe library (Pe	C17H28	232.411	17	MAr	0	1	CCCCCCCC
89	InChIKey=AGZLWY	2,6,9,13-tetramethylh	Concawe library (Pe	C25H52	352.691	25	i-P	0	0	CCCCCCCC
90	InChIKey=AHADXM	1-ethyl-2,6-dimethylfl	dimethyl,ethyl fluora	C20H18	258.364	20	NPolyAr	0	3	CCC1=C2C3
91	InChIKey=AHAGUL	1-(butan-2-yl)-3-ethyl	Concawe library (Pe	C26H36	372.596	28	NPolyAr	1	3	CCC(C)c1cc(
92	InChIKey=AHAJAC	1-methyl-3-propylanth	methyl,propyl anthr	C18H18	234.342	18	PolyAr	0	3	CCCc1cc(C)c
93	InChIKey=AHALOU	3,4,16,18-tetramethyl	tetramethyl benzo[e	C28H22	358.484	28	PolyAr	0	6	Cc1cc(C)c2c(
94	InChIKey=AHAUFE	3-ethyl-10,17-dimethy	dimethyl,ethyl diben	C28H22	358.484	28	PolyAr	0	6	CCc1cccc2cc
95	InChIKey=AHBMBS	1-(3,8-dimethylnonyl)	Concawe library (Pe	C22H38	302.546	22	MAr	0	1	CC(C)CCCC
96	InChIKey=AHBVBC	5-ethyl-2,11-dimethylt	dimethyl,ethyl benz[	C22H20	284.402	22	PolyAr	0	4	CCC1=CC2=C

Hazard data

Harmonised classification
IARC
Literature (*in vivo*/*in vitro* studies)
QSAR predictions (DEREK)

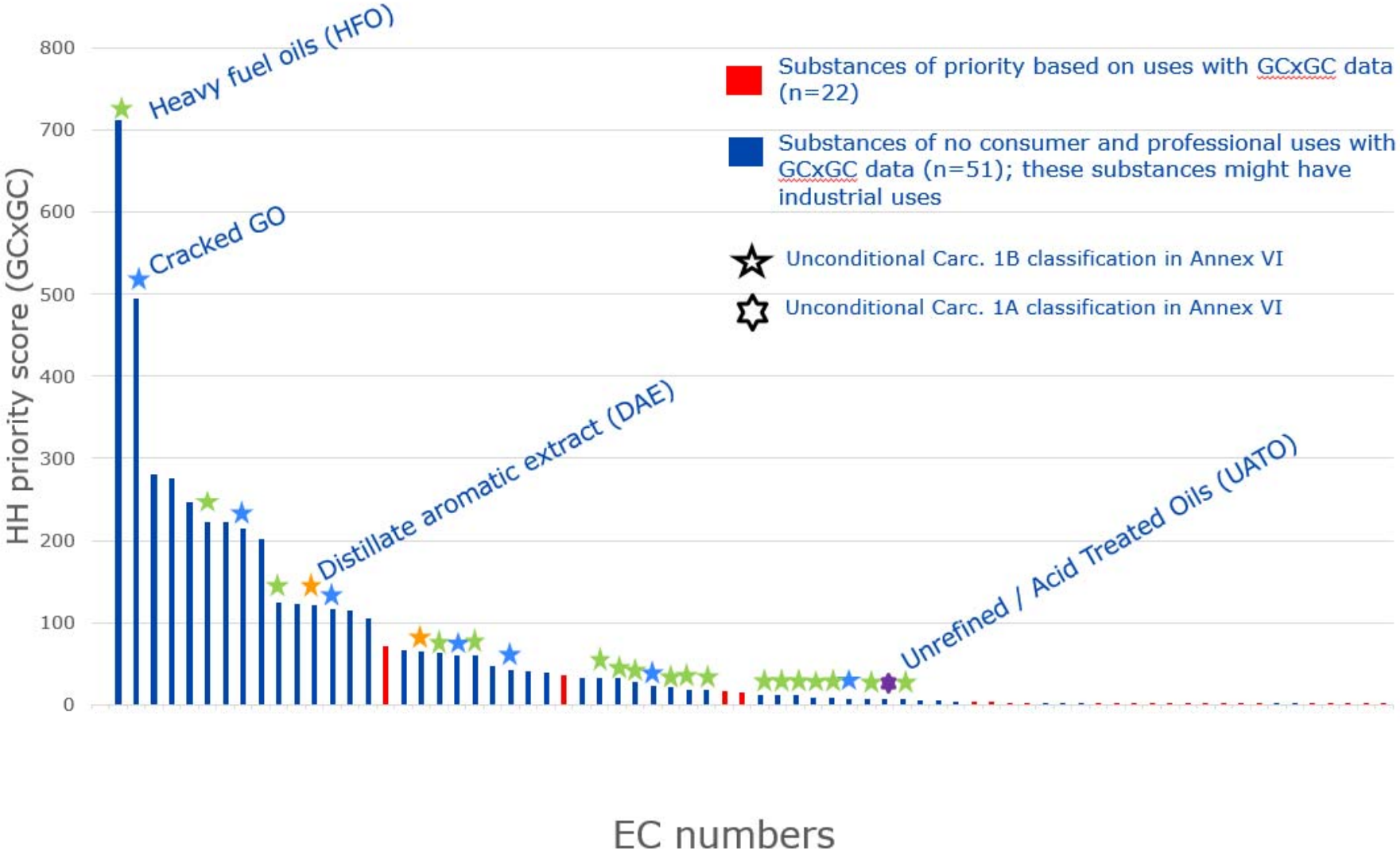
Application of weighing factors for the different types of hazard data

Assignment of hazard score to HC blocks

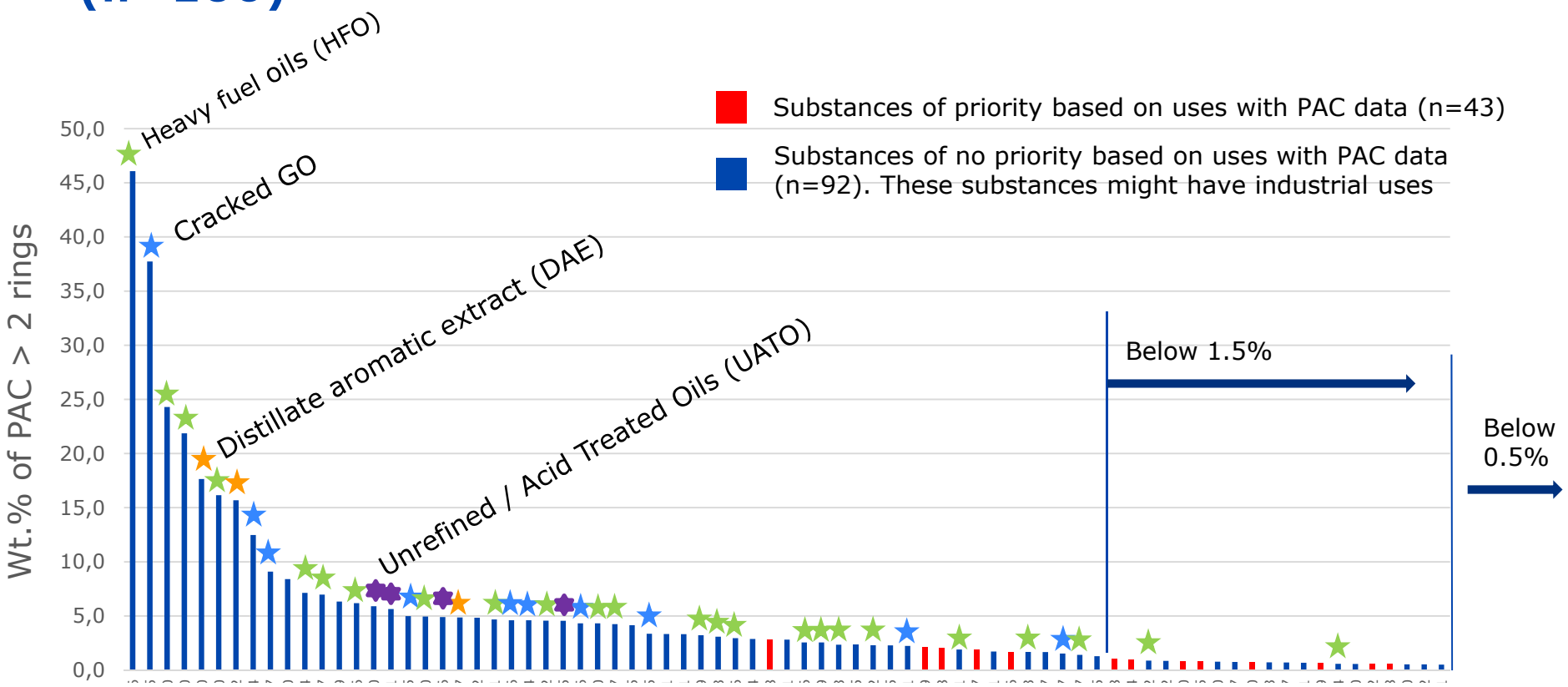
GCxGC priority list:

Σ(Block score)x(Concentration of the HB) = Priority score of the substance

Priority score for all substances with available GCxGC data (n=73)



Priority score for all substances with available PAC data (n=135)



Unconditional Carc. 1B classification in Annex VI

Unconditional Carc. 1A classification in Annex VI

Ongoing discussions

Hazard prioritisation and assessment

- Blocks and analytical data are the starting point of the prioritisation but uncertainties around blocks
- Hazard assessment for both HH and ENV and which data to generate, on what. Testing on representative structure of the blocks? Testing on the whole substance?
- How to address the categories
  - Ongoing work on some categories by ECHA
- Assessment by the Netherlands of one block from ENV perspective for discussion at the next PBT EG in May

How to best regulate those substances from a risk management perspective

- Regulating PETCO substances: what does that mean, what do we want to achieve?
  - Clear link to the discussion on hazard assessment, HCB, constituents
  - Regulating the uses of the substances falling under PETCO ?
  - Regulating the presence/level of PAHs in mixtures, articles ?

- Further discussion needed among authorities – Discussion paper to be brought to a wider audience of Member States/COM

Thank you!

Petco_cg@echa.europa.eu

Subscribe to our news at
echa.europa.eu/subscribe

Follow us on Twitter
@EU_ECHA

Follow us on Facebook
Facebook.com/EUECHA