

Substitution and the role/importance of the Public Consultation



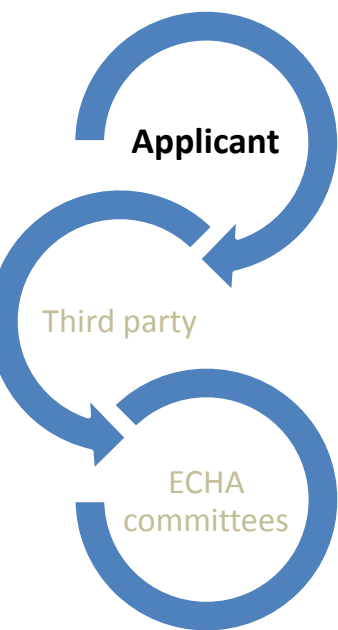
A search for the holy grail?

Experienced based recommendations for a successful Public Consultation for all involved stakeholders

Only submit an AfA when you believe in a sound case

Describe the use in a relevant way for the PC:

- “substance for use in automotive battery”
 + “substance used in the anodes of an automotive battery allowing cold starts and available in > 1 mio ton a year”



Describe **economic & technical feasibility** transparently AND be clear on hazard and risks of the alternatives:

Scoping Case: steam reforming

Steam reforming catalyst

☞ Technical performance: PGM's are more active, more poison resistant and have a longer lifetime

Impact assessment

☞ Others than Ruthenium are considered feasible

Other performance

☞ Based on *availability...* reasonable substitute available

Raw material	Catalyst product
Ru (III) nitrosyl nitrate*	ruthenium oxide*
Oxid. Solid (H272)	Skin Irr. H315
Skin Corr. 1A (H314)	Eye Irr. H319
Eye Dam. 1 (H318)	
Met. Corr. 1 (H290)	

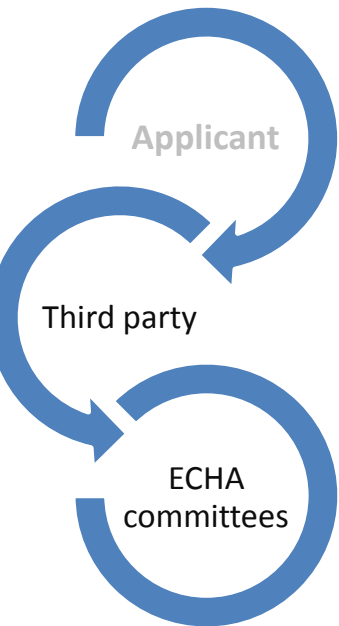
Metal	Price US (\$/kg)	World production (tpa)
Metal X	17	1,600,000
Ruthenium	4,200	32
Platinum	52,000	252
Palladium	21,000	276
Rhodium	53,000	23

Societal values: provide information on Sustainability aspects (energy savings, criticality, social welfare aspects, ...)

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Third parties holding information

- Relevant if **focused on the BIU** which helps assessing the relevance during the Dialogues
- Include also SEA and hazard, risks of alternatives



ECHA Committees

- Alternatives that **focuses on the function described in the BIU** and contain SEA and hazard (and risk) information helps a proper assessment

