



الْجَمْعِيَّةُ الْعِلْمِيَّةُ الْمَلَكِيَّةُ
Royal Scientific Society

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Ref: Reference

Date: 3rd August 2022

Dissemination Workshop of Technical Guideline

EVENT REPORT

Prepared for:

United Nation Environment Program (UN_{Environment})

Prepared by:

Environmental Studies Division
Royal Scientific Society

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1

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Introduction

The Cleaner Production Unit Jordan (CPU) at the Royal Scientific Society (RSS) in partnership with the United Nations Environment Program, held a workshop at the Landmark Hotel on 29/6/2022 to launch the Technical Guidelines of eliminating lead in paint and present the technical results within the project of promoting regulatory and voluntary action by government and industry to phase out lead in paint. The workshop was attended by the Ministry of Health, the Ministry of Environment, the Ministry of Industry and Trade, the Jordan Standards and Metrology Organization, the International Pollutants Elimination Network (IPEN), the World Health Organization, the Abu Dhabi Quality and Conformity Council, the Cleaner Production Center in Serbia, and many participants from the public and private sectors and civil society institutions.

In addition to the in-depth explanation of the Technical Guidelines for Lead Paint Reformulation, the workshop reviewed national developments in the field of protecting public health from the exposure to lead in paint and the future steps to follow in this regard, where the participants concluded the vital need and importance of raising awareness about the dangers of exposure to lead in paint and urging companies to take advantage of the Technical Guidelines to work on eliminating lead in their products.



Activities Undertaken in the Event

The event was held in hybrid mode; online via ZOOM application and face to face at landmark Hotel in Amman on Wednesday, 29th June 2022.

The session which was facilitated by Jordan CPU team, was attended by Ms. Mihaela Paun from UNEnvironment, Ms. Vojka Satric from Serbia Cleaner Production Center, Government representatives (MoENV, MoH, MoIT, Jordan Customs ..etc), in addition to several representatives from local industries and key local stakeholders. A list of all participants of the session is shown in Table (1).

Table (1): List of participants

No.	Organization	Name
1.	UNEnvironment	Mihaela Paun
2.	Serbia Cleaner Production Center	Vojka Satric
3.	USEPA	Angela Bandemehr
4.	IPEN	Jeiel Guarino
5.	Advisor to IPEN Global Lead Paint Elimination Campaign	Manny Calonzo
6.	WHO	Hiba Safi
7.	Abu Dhabi Quality and conformity council	Ameera AlAmeri
8.	Environment Agency – Abu Dhabi	Mohammad Mousa
9.	Lebanon CP Centre	Ali Yacoub
10.	Land & Human to advocate Progress (LHAP)	Ziyad Alawneh
11.	Ministry of Environment (MoENV)	Reema Alhindi
12.	Ministry of Health (MoH)	Asmaa Alqadi
13.	Ministry Industry & Trade	Mohammad Alkhaldi
14.	Ministry Industry & Trade	Abeer Ramadneh
15.	Ministry of Water & Irrigation (MoWI)	Rehab AlTarawneh
16.	Water Authority / Ministry of Water & Irrigation (MoWI)	Iman Zaghloul
17.	Jordan Standards and Metrology Organization (JSMO)	Ruba Al-Thawabeia
18.	Jordan Standards and Metrology Organization (JSMO)	Shaymaa AlJabery
19.	National Paints Company	Omar Abu taha
20.	Sipes Paints Company	Ghada Al Dababneh
21.	Al Manaseer – Al Manaseer Industrial complex	Arwa Alwawi
22.	Nashmiat Union to empower Women	Reema Shreedah
23.	Nashmiat Union to empower Women	Ibtisam Almarzouq
24.	Jordan's Women Union	Waad Abed
25.	Amman Chamber of Commerce	Ayat Bustanji
26.	Amman Chamber of Industry	Rose Smadi
27.	Jordan Chamber of Industry	Salameh Abdullah Alboun
28.	Jordan Chamber of Industry	Mohammad Bawaneh



29.	Jordan Customs	Emad Dabbas
30.	Public Security - Tourism	Dunya Abu Awad
31.	Public Security – Civil Defense / Hazardous Material Management Division	Reem Abu Laban
32.	Independent Training Company	Shaher Alkhashabneh
33.	Hyundai	Ismael Saleem
34.	Hyundai	Ayman Ahmad
35.	Alhaydan paint Company	Ramez Srougi
36.	Jordan Engineers Association	Fidaa Abd Alhaq
37.	Independent consultant	Majd Qasem
38.	Jordan University of Science & Technology (JUST)	Ibrahim Bani Hani
39.	Obegi Chemicals Company	Hamzah Shawabkeh
40.	The Jordanian Society to Combat Desertification and Development of the Badia	Mohammad AlGhabashneh
41.	Honda	Atiah AlDabobi
42.	Tameer Paints Company	Wessam Al-Masri
43.	Director of WEC at Royal Scientific Society (RSS)	Al-Moayied Assayed
44.	CPU Project Team	Husam Kilany
45.		Musab Al-Hour
46.		Salah Abu-Salah
47.		Omar Al-Saleh



At the workshop, the following activities took place:

– **Opening Remarks:**

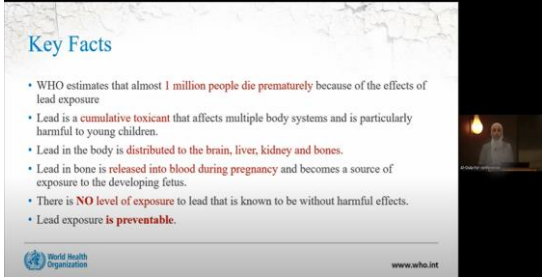


– opening speeches were given by the UN_{Environment}, RSS-CPU and Serbia Cleaner Production Center representatives as follows:

- Dr. Al-Moayied Assayed – Director of Water and Environment Centre - RSS
- Ms. Mihaela Paun - UN_{Environment}
- Ms. Vojka Satric– Serbia Cleaner Production Center




– 1st Session Presentations:



Key Facts

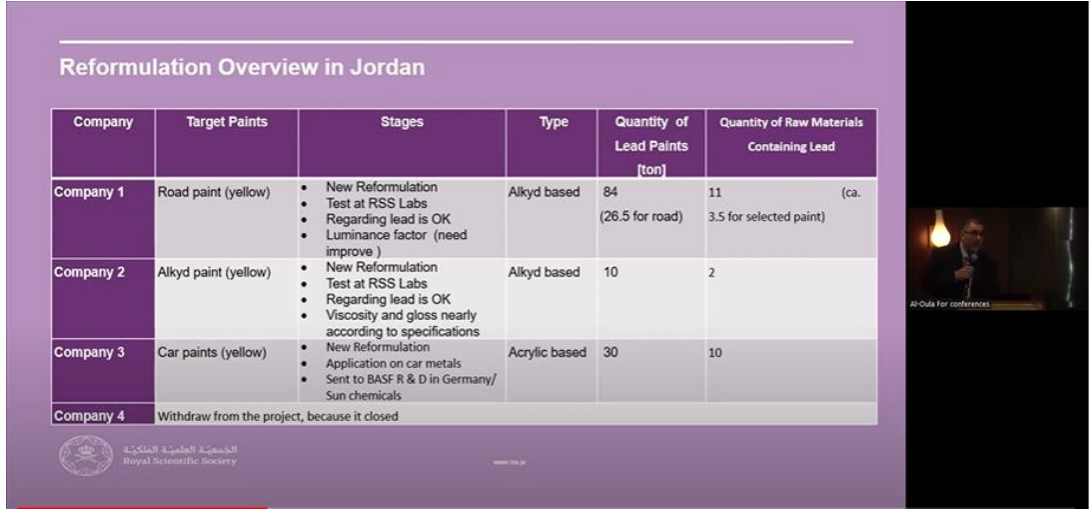
- WHO estimates that almost 1 million people die prematurely because of the effects of lead exposure
- Lead is a cumulative toxicant that affects multiple body systems and is particularly harmful to young children.
- Lead in the body is distributed to the brain, liver, kidney and bones.
- Lead in bone is released into blood during pregnancy and becomes a source of exposure to the developing fetus.
- There is **NO** level of exposure to lead that is known to be without harmful effects.
- Lead exposure is **preventable**.

World Health Organization
www.who.int



الاجاب التنظيمي والتشريعي: قطاع الدهانات

الرجعية	القرار	السنة
<ul style="list-style-type: none"> • تحديد نسبة الرصاص المسموح به كمواد ب. قرار معالي وزير الصحة الصادر في العدد رقم 106 ب. 14/11/2012 • تم اعتمادها في المؤسسات التعليمية الأردنية ذات العلاقة. 	2012	
<ul style="list-style-type: none"> • تمديد المهلة الممنوحة للمصانع لاستخدام مركبات الرصاص في الدهانات المبنية (دهانات الديوارات، دهانات الطرق، الدهانات الصناعية) لمهلة عام 2017 مع التقييد بالاشتراطات الواجب وضعها على عبوات الدهان التي تسمح باستخدام مركبات كرومات الرصاص الواردة في قرار 2008 تكميلاً مع التشريعات الدولية. 	2012	



Reformulation Overview in Jordan

Company	Target Paints	Stages	Type	Quantity of Lead Paints [ton]	Quantity of Raw Materials Containing Lead
Company 1	Road paint (yellow)	<ul style="list-style-type: none"> • New Reformulation • Test at RSS Labs • Regarding lead is OK • Luminance factor (need improve) 	Alkyd based	84 (26.5 for road)	11 (ca. 3.5 for selected paint)
Company 2	Alkyd paint (yellow)	<ul style="list-style-type: none"> • New Reformulation • Test at RSS Labs • Regarding lead is OK • Viscosity and gloss nearly according to specifications 	Alkyd based	10	2
Company 3	Car paints (yellow)	<ul style="list-style-type: none"> • New Reformulation • Application on car metals • Sent to BASF R & D in Germany/ Sun chemicals 	Acrylic based	30	10
Company 4	Withdraw from the project, because it closed				

الجمعية العلمية الملكية
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- Dr Heba Safi/ WHO, has presented an overview of the health impact that lead poses. She outlined the factual aspect of reduced IQ levels, impaired learning ability & increased risk of behavioural disorders. She also outlined the social and economic costs resulting from lead exposure. Moreover, she shed some light on the WHO relevant response, via developing guidelines and facilitation of lead elimination. Lastly, Dr Hiba emphasized on the importance of public awareness.
- Eng Asmaa AlQadi, has presented an overview of The Ministry of Health obligatory role and impact in enhancing the prevention of lead exposure both via monitoring and setting regulations and guidelines.
- Eng. Husam Kilany has presented the Project overview and outcomes by RSS-CPU representatives. He introduced the project background and then detailed comprehensively the



selection process of pilot companies and reformulation outcomes along with the driver and barriers in the project roadmap. 4 pilot companies committed but one unfortunately withdrew due to COVID19 implications has shut down their production line. Hence 3 target lead paints were tested; Road paints (Yellow), alkyde paints (Yellow), & Car Paints (Yellow) respectively and all had significant amounts of Lead content. The reformulation was successful leading to reduction of lead content to less than 90ppm on dry weight bases. Environmental and health aspects with and competitive edge were at the top of the reformulation drivers list and on the contrary, alternative lead-free costs, market availability and their technical compatibility (especially meeting colour specs) were at the top of the barriers list. Husam also mentioned the 90ppm limit set for lead in paint will accelerate the reformulation and phasing out process when it comes to act. HE reflected on the EPOXY paint alternative and how it's a huge opportunity and an attractive potential for Jordan to target. He concluded with a set of recommendations for enhancing mass awareness raising, technical support to governments and Advocacy programs.

- Mr. Emaad dabbas / Jordan Customs representative has emphasized on the need of effective and mass dissemination of the awareness campaigns in Jordan. Mr Husam responded with agreement and that efforts are being put in place.
- Eng Asmaa Alqadi / MoH representative has mentioned that the import-based paints are the real challenge and problem. Also, the complexity of the pigments and compounds sets the challenge of traceability.
- Mr Wessam Almasri / Ta3meer Paint Company representative, raised the concerns regarding Kids toys and their relevant monitoring procedures set by the officials as it is a major threat to our children.
- Eng Reema Alhindi / MoENV representative, emphasized on the environmental impact of lead and that should be highly considered together with the health impact.



– **Panel discussion:**



Moderator: Eng Husam Alkilany / RSS

List of **Panellist** and their remarks:

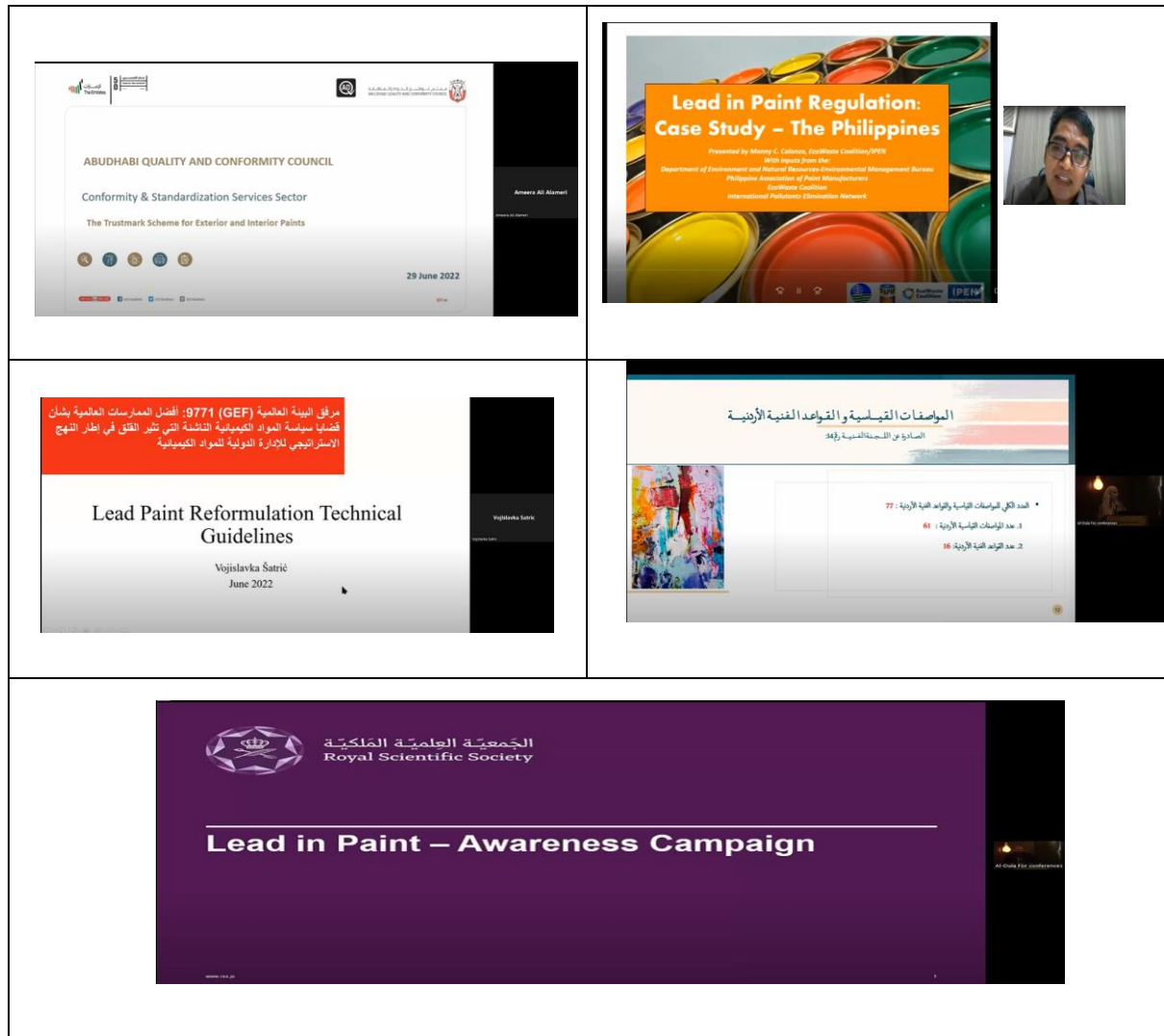
- **Eng Asmaa Alqadi / Environmental Health Directorate (EHD) in Chemical Safety Division at the Ministry of Health (MoH)**, gave potential future actions and improvement to enhance protection of public health from lead exposure. She mentioned that the ministry plans to incorporate road paints into the regulation and guidelines to gradually phase out lead from various sources. She mentioned that not only lead is considered rather mercury and other compounds have a set threshold limit. She concluded by mentioning that the ministry tries enhance the phase out process in all sectors while consider the local economic, and social context.
- **Eng Reema Alhindi / Head of Hazardous Substances Section at the Hazardous Substances and Wastes Management Directorate - Ministry of Environment (MoEnv)**, explained how lead containing material is disposed and highlighted the relevant Hazardous waste regulation and guidelines.
- **Dr. Ruba Al-Thawabeia / Acting Director of Verification, Notification and Anti-Counterfeiting Unit at Jordan Standards and Metrology Organization (JSMO)**, in response to the children Toys monitoring, she detailed the monitoring plan and strategy that JSMO implements and highlighted that they do random inspections and intensified ones especially during Toys peak seasons such as Eid Holidays. Nevertheless, she did raise the concern of having comparatively less human resource in the inspection department than required. On the other hand, she mentioned that JSMO will adopt this technical guideline and work with its industry partners to disseminate it and accelerate the phase out.
- **Eng Mohammad Alkhaldi / the Director of Control & Inspection Unit for Economic Activities at the Ministry of Industry, Trade & Supply**, detailed their mandate and role in monitoring and



control of market products and dealings. He mentioned available 10 Inspection teams are distributed on ground for different purposes. Furthermore, he highlighted that and Electronic Monitoring System is being installed to be operated soon.

- **Dr Ziyad Alawneh / Land & Human to Advocate Progress (LHAP)**, outlined the importance in dealing with controversial chemicals such as POPs, Lead, etc that persist in the environment and bioaccumulates once in the food chain leading tremendous health and environmental issues. Dr Ziyad was concerned with the lack of a comprehensive legislation specific to chemicals such as lead in paint and that we need specific standalone legislations for chemicals of concern. Lastly, he emphasized on raising the local standards and upgrading them.

– **2nd & Final Session Presentations:**



- Eng. Amara Ali Alameri / Abu Dhabi Quality and conformity council, presented an overview about Conformity & Standardization Services Sector and the services provided by Abu Dhabi Quality and Conformity Council, with a special focus on The Trustmark Scheme for Exterior and Interior Paints. She gave an insight about Abu Dhabi Certification Scheme for Exterior and Interior Paints, and before finishing her presentation, she came across paint allowable VOC limits, and paint specifications with special focus on heavy metals contents in addition to presenting the testing methods used to ensure paint quality.
- In response to one of the questions, Eng. Amara clarified that legal status scheme is categorised as a standard and have no other legal form.
- Ms. Vojislavka Šatrić / Serbia NCPC & Project Key Technical Expert, presented a detailed insight on the Technical guideline for Lead paint reformulation. She introduced the technical guideline background, purpose, target audience and main focus. Mainly the guideline was developed to address constraints and barriers in reformulation and help SMEs towards effective reformulation. She mentioned that the guideline outlines generic information on reformulation and referenced the GEF project pilot demonstrations for specific data and in-depth analysis. She then briefly went through the chapters and table of contents of the guideline showing how detailed, easy and holistic it is. She also highlighted the different paint types and categories (Pigments, extenders & Driers) that contain lead and how lead can be added intentionally in the process especially if the production lines are contaminated and were not properly cleaned to take of all lead traces. Furthermore, she explained the reformulation and substitution process; where she emphasized on the importance of choosing the right paint raw material, right reformulation process to achieve the best optimum paint performance. She showcased commercialized alternative and a feasibility comparison between lead-based and lead-free formulations for all categories (pigments, driers & extenders). The conclusion was how more feasible and reasonably practicable is the lead-free formulation. She also gave an insight on colours theory and the 3D colour index. She mentioned that there is an exhaustive list of suppliers is provided in the guideline in addition to a list of pilot demonstrations and ISO related standards. Lastly, she concluded with how the guideline shows the feasibility of alternatives and the availability of numerous sources of alternative raw materials in the market and she recommended that an integrated and holistic approach by government, advisors, decision makers will accelerate towards phasing out lead in paint.
- Mr Manny Calonzo / Advisor to IPEN Global Lead Paint Elimination Campaign, has presented an overview of the Philippines case study in the lead in paint regulation. He went through the background of lead status in Philippines followed by the driving factors to enhance phase out of lead in paint, including the health and safety concerns. Moving forward, Mr. Manny highlighted the process that led to the adoption of lead paint regulation, and explained the role of the Chemical



Control Order (CCO) prepared by Philippines Environmental Management Bureau (EMB), and the consequent consultations with stakeholders, including public and affected industry sectors, and addressing their feedback. He also presented the key elements of the adopted lead paint law, encompassing all paint categories and different phase-out schemes. Mr Manny further explained the prohibited uses of paints in different applications other than decorative and industrial applications, such as packaging for food and drinks, fuel additive, water pipes, toys, school supplies, and cosmetics. Before addressing the factors that contributed to the success of Philippines case study, Mr. Manny gave an insight about mainstreaming lead-safe paints, and updating paint related standards, Mr. Manny also gave special attention to the promotion of “Voluntary Third-Party Lead Safe Paint Certification”.

Additionally; Mr. Manny shared some success indicators that reflects the success of Philippines case with lead paint regulation, were the results showed a dramatic reduction of lead paints between the year 2013 And 2017. Lastly, he shared the factors that contributed to the success of Philippines lead paint regulation -case study.

- After Mr. Manny presentation the floor was open for questions, were Dr. Al-Moayyad, director of Water, Environment and Climate Change Center at RSS, have raised two question, the first question was about the impact of certification on customer purchasing preferences, the second question was discussing the success of Philippine case in a very short period of time and the main drivers of such success. Mr. Manny responded to the questions by emphasizing the importance of health issue in determining the purchasing behaviour among customers in Philippines and the role of civil societies supported by the mass media in raising awareness about health impacts of lead to human health which generates demand on lead free paint, were lead-free certificates plays an important role in ensuring the compliance of paint products with local regulations. As for the second question, Mr. Manny explain that the main driver that plays the important role in such success is the deep attention to children’s health among the population Philippines.
- Another question was raised Dr. Ziyad Alawneh, about the inclusion of lead-free regulation to other products such as toys and cosmetics, and if the regulation is also addressing other heavy metals such as cadmium and Selenium. Mr. Manny responded that CCO is only addressing lead.
- Eng. Shaymaa AlJabery / Jordan Standards and Metrology Organisation, presented an overview of Lead Prohibition in Jordanian Standards of paints and varnishes
- Mr Musab Alhour / RSS, presented and outlined the awareness campaigns held during the project life cycle and different means and media channels that were used to disseminate and reach different group and communities form the public to the government officials. He shared a sample of the awareness materials and the links towards all awareness materials on lead-paint.



- The Panellist, Speakers, and stakeholders have all concluded that serious steps have to be taken to protect both the health and environment from the diverse impact of lead and the first is to issue a lead-paint policy.
- Closing remarks & Lunch.
- **RECAP**
 - ✓ The workshop succeeded in disseminating the technical guidelines to very important stakeholders, such as the chambers of industry. The steps to follow will be focused on more dissemination through chambers of industry.
 - ✓ The audience emphasized the need for continual awareness raising and its role towards creating a monument to phase out lead in paint
 - ✓ The stakeholder's discussion has shed light on the importance of the lead paint regulation to phase out lead in paint
 - ✓ The event was successful in highlighting technical guidelines on a regional level. We had Lebanon CP centre, Abu Dhabi Quality and conformity council & Abu Dhabi -Environment Agency (EAD) all attending the workshop.







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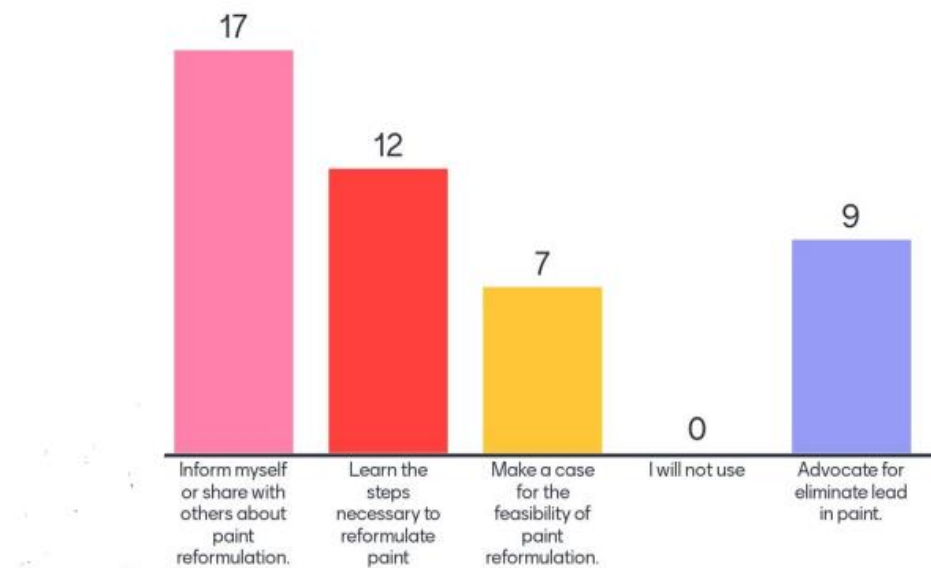
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POLL Questions & Results

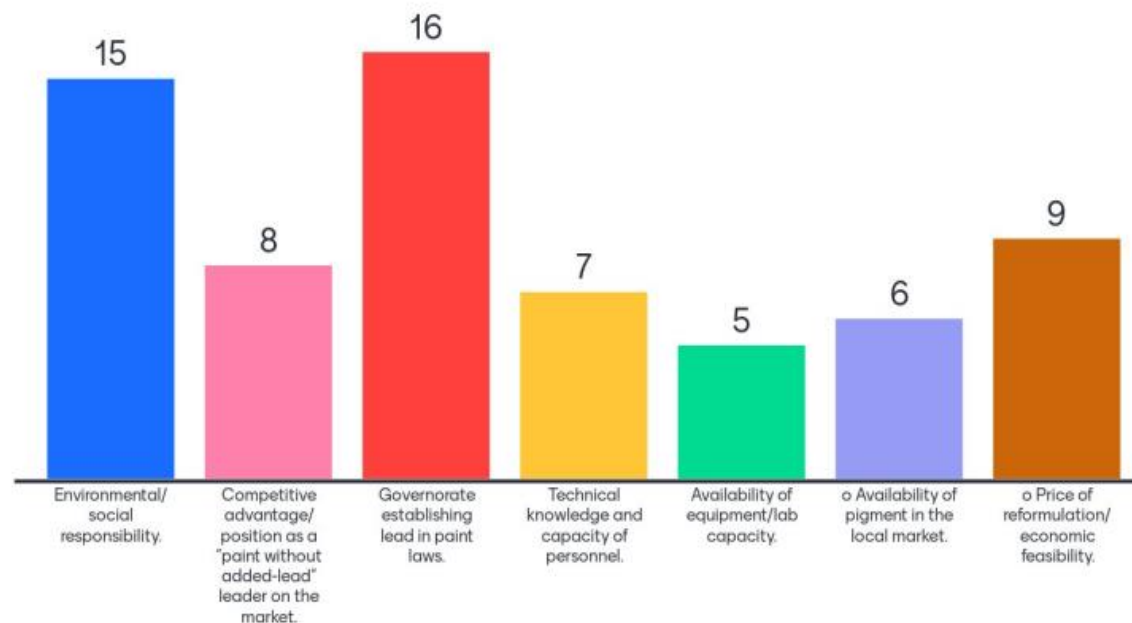
How will you use technical guidelines on paint reformulation?

Mentimeter



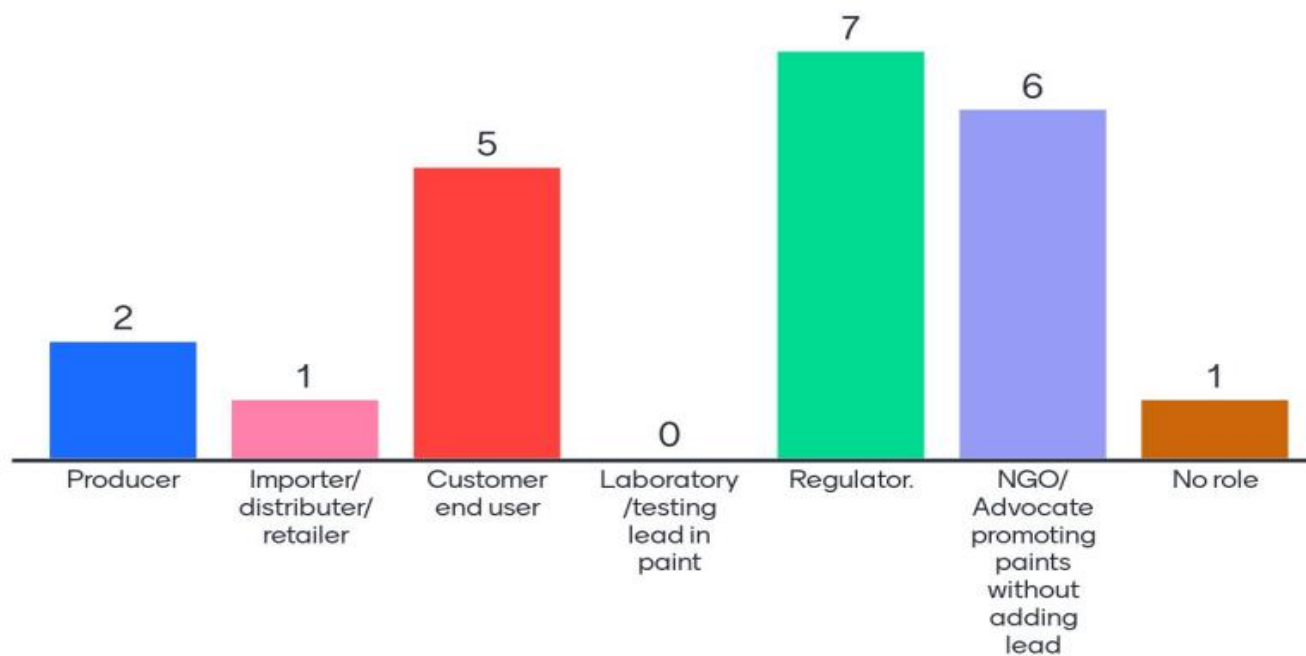
In your view, which factors lead industry to take initiatives toward reformulation?

Mentimeter



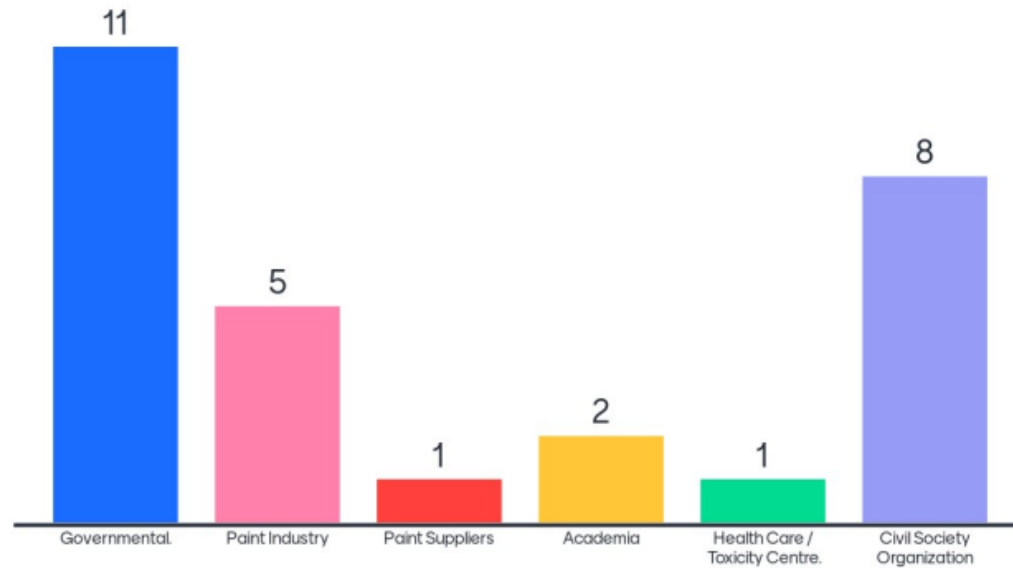
What is your role with regard to paint?

Mentimeter



What type of organization you are representing?

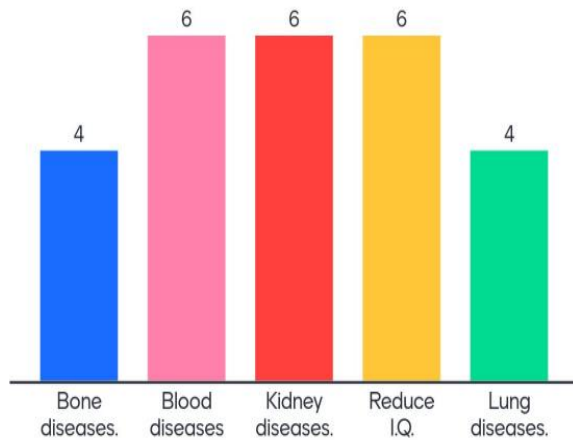
Mentimeter



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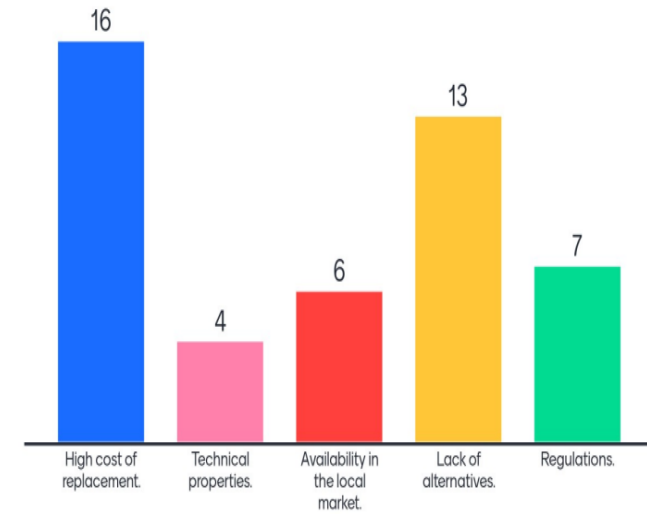
What are the impacts of Lead in Paints on Human Health (Multi-selection)?

Mentimeter



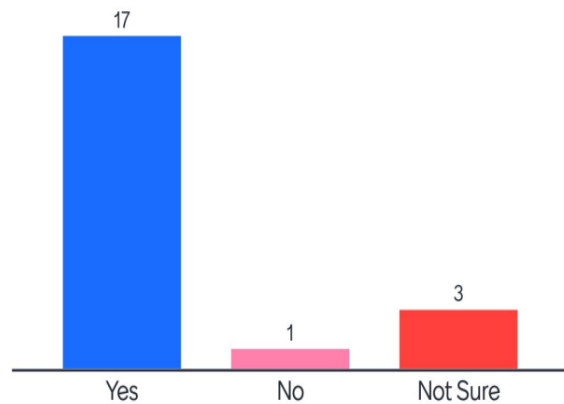
Why lead is still used in paint industry?

Mentimeter



In your opinion, could lead compounds be replaced?

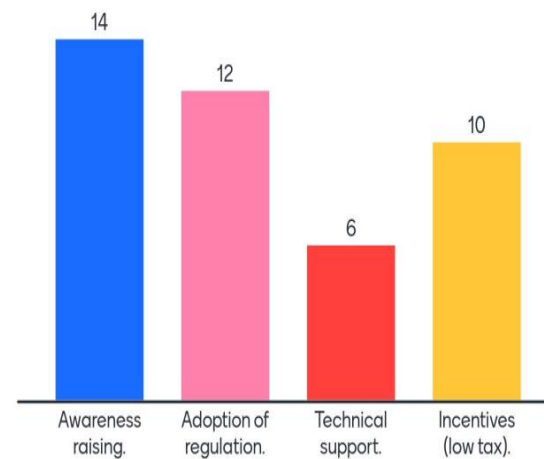
Mentimeter



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What actions do you see as more significant for reformulation and scale up?

Mentimeter



21