

concaawe



Mineral Oils Cross Industry Issues

MOCRINIS

Workshop introduction
Juan-Carlos Carrillo (Shell)

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CONserva**ti**on of **C**lean **A**ir and **W**ater in **E**urope

The Oil Companies' European association for health, safety and environment in refining and distribution
(founded in 1963)

Operating Principles:

- ✓ Sound science
- ✓ Cost-effectiveness of options
- ✓ Transparency of results

- | | |
|---------------------------------------|-------------------------------|
| ➤ Automotive Emissions & Fuel Quality | ➤ Refinery Technology Support |
| ➤ Air Quality | ➤ Health Science |
| ➤ Water/Soil Quality & Waste | ➤ Petroleum Products |
| ➤ Oil Pipelines | ➤ Risk Assessment |
| ➤ Safety | ➤ REACH & GHS Implementation |

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Anti-trust/Competition Law Reminder

Anti-trust/Competition Law DON'Ts

DO NOT discuss the following topics in meetings or activities:

- Individual company or industry prices, price changes or margins for products
- Company data on costs, production capacity, inventories, or sales
- Future business plans for the design, production, distribution or marketing of specific products
- Overhead or distribution costs, cost accounting formulae, or methods of computing costs
- Intentions to bid or not to bid
- Intentions to enter or not to enter certain markets or products
- Any matters related to actual or potential customers or suppliers
- Rates or rate policies for shipments, zone pricing, and freight

DO NOT make any agreement or take a decision to conduct the following:

- Fix sale or purchase prices or other terms of sale or purchase
- Restrict capacity or output
- Refrain from supplying a product or service
- Limit the quality of competition or research
- Divide markets or customers
- Exclude competing companies or blacklist specific customers or suppliers

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Anti-trust/Competition Law DOs

ENSURE that meeting agendas and minutes are produced and circulated to all attendees and accurately reflect the discussions that occurred.

LIMIT meeting discussions to the agenda topics. Items for any other business should be discussed with the Chair before the meeting.

OBJECT if an improper or questionable subject is raised and ensure that your objection is accurately recorded in the minutes.

SEEK legal advice before participating in potentially sensitive activities:

- Gathering and exchanging statistical information
- Benchmarking activities
- Creating industry standards or best practices

APPLY the same standards of business conduct at social gatherings with competitors as you would at business meetings.

CONSULT CONCAWE's Competition Law Guidelines or your Company's own legal advisor on all questions that might be related to anti-trust issues or competition law.

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- ▶ Evacuation plan – Refer to handout in your packet
 - ▶ Follow the green exit signs
 - ▶ Do not use the elevator
 - ▶ Meeting point is in the parking lot at the main entrance to the hotel property
- ▶ Emergency numbers
 - 118 – Ambulance
 - 115 – Fire
 - 113 or 112 - Police

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► Guest Speakers

- Andre Adam, FRAGOL
- Jan Beens, Univ. of Amsterdam and Free Univ. of Amsterdam
- Diane Benford, UK Food Standards Agency – FSA
- Marco Binaglia, EFSA
- Ilaria Braschi, University of Bologna
- Jonathan Briggs, UK Food Standards Agency - FSA
- Jan Cardon, European Carton Makers Association (ECMA)
- Eugenio Cavallini, Confederation of European Paper Industries CEPI
- Jean Pierre Cravedi, French National Institute for Agricultural Research
- Kenneth Fleming, UK Royal College of Pathologists
- Erich Frank, Flint Group
- Annette Schaefer, DG Sanco
- Rachida Semail, Keller and Heckman
- Philipp Stolper, FOGRA
- David Tennant, Food Chemical Risk Analysis
- *Alan Boobis, Imperial College (apologies due to an unexpected issue)*

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- ▶ MOCRINIS was organised by the following stakeholders
 - Andre Adam, Fragol
 - Peter Boogaard, Shell
 - Dirk Danneels, European Wax Federation (EWF)
 - Stuart Forbes, Shell
 - Katy Goyak, ExxonMobil
 - Anna Hedelin, Nynas
 - Martin Kanert, EUPIA
 - Arlean Rohde, CONCAWE
 - Jose Antonio Ruiz, ExxonMobil
 - Juan-Carlos Carrillo, Shell – MOCRINIS Chairman
- ▶ MOCRINIS moderator
 - Dirk Danneels, EWF
- ▶ MOCRINIS general note taker
 - Barry Simpson, Simpson Toxicology Consulting

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Different kind of oils are used in applications (e.g. printing inks) supported by REACH. Newspapers are printed with MO based inks. Hydrocarbons may migrate from cardboard manufactured from recycled newspaper into food.

Food-grade mineral oils follow food legislation procedures which establish and Acceptable Daily Intake. The ADI should be based on relevant data for risk assessment and applicable to food related applications of mineral oils.

?

Analytical methods for hydrocarbons can't distinguish between hydrocarbon products or sources. Validated methods should be established.

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Why MOCRINIS?

► Mineral Oil:

- is it an issue of Mineral Oil or hydrocarbons in general?
- Is it about products or fractions of hydrocarbons?

► Cross Industry:

- Is not only about printing inks
- Hydrocarbon complex substances are used in different downstream industries regulated by different legislations

► Issues:

- Not easily resolved due to the complex nature of the substances
- Overlapping hydrocarbon ranges of complex substances (and background hydrocarbons)
- Toxicological interpretation of available studies
- Uncertainties in analytical procedures to ensure compliance
- What are the practical approaches suggested?

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- ▶ Facilitate Stakeholders a discussion forum
- ▶ Express points of view (which may be quite different)
- ▶ Have a constructive discussion and listen to others
- ▶ Gain clarity on the issues
- ▶ Health assessment based on science
- ▶ Appropriate regulatory approach
- ▶ Review EFSA's recommendations on mineral oils
- ▶ Define a reasonable way forward
- ▶ Publish discussions and recommendations

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- ▶ Key developments that led to organize MOCRINIS
- ▶ Objectives of each section

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Recycling-Verpackungen

Ölpest im Ka

Recycling ist gut für d
können gefährliche S

taz.de

POLITIK ZUKUNFT NETZ DEBATTE LEBEN SPORT WAHRHEIT BERLIN NORD
KONSUM UMWELT WIRTSCHAFT BILDUNG WISSEN

11.10.2011 | 9 Kommentare

SCHADSTOFFE IN PAPPKARTONS

Spaghetti al Petrolio

Behörden warnen vor Recyclingkartons für Lebensmittel:
Enthaltene Mineralölreste verdampfen und verunreinigen Reis
oder Nudeln. Strengere Regeln soll es nicht vor 2015 geben. VON
BRITTA VELTZKE



“media and general” perception:

Printing inks → Cardboard → Toxic Chemicals → Mineral Oil → Food → Cancer

HOME NEWS
Motoring Health
Health News
HOME » HEALTH »
Q&A: How
Swiss research
a health risk

14. April 2012
taz.lab
DAS GUTE
LEBEN
PROGRAMM
& KARTEN



Mit oder ohne Mineralölreste? Kochenden Spaghetti sieht man es nicht an.

BERLIN taz | Nudeln oder Reis, die in
Recyclingkartons verpackt werden, sind mit
schädlichen Resten von Erdöl belastet. Davor warnt das Bundesinstitut
für Risikobewertung (BfR). Durch strenge Grenzwerte in einer

Bild: suze / photocase.com

from printing inks.

NEWS
Real news, real entertain
LIFESTYLE MONEY PLAY
Sayid | 1 Comment | 9

Cardboard packaging
Mobile
NEWS UK
Major brands are taking action



Übergänge von Mineralöl aus Verpackungsmaterialien auf Lebensmittel

Stellungnahme Nr. 008/2010 des BfR vom 09. Dezember 2009

Karton für Verpackungen wird aus ökologischen Erwägungen zu einem großen Teil aus recyceltem Altpapier hergestellt. Untersuchungen aus der Schweiz zeigen, dass Recyclingkartons hohe Mineralölanteile enthalten können. Ursprung der Mineralöle sind Druckfarben, wie sie üblicherweise im Zeitungsdruck verwendet werden. Werden Lebensmittel wie zum Beispiel Reis in derartigen Kartons verpackt, können Mineralöle aus dem Karton in größeren Mengen in das Lebensmittel übergehen. Diese können mit kürzerkettigen und aromatisierten Mineralölen von Lebensmitteln unerwünscht aufgenommen, so dass bei häufigem Verzehr Grenzwerte überschritten werden können.

Eur Food Res Technol (2010) 230:785–796
DOI 10.1007/s00217-010-1223-9

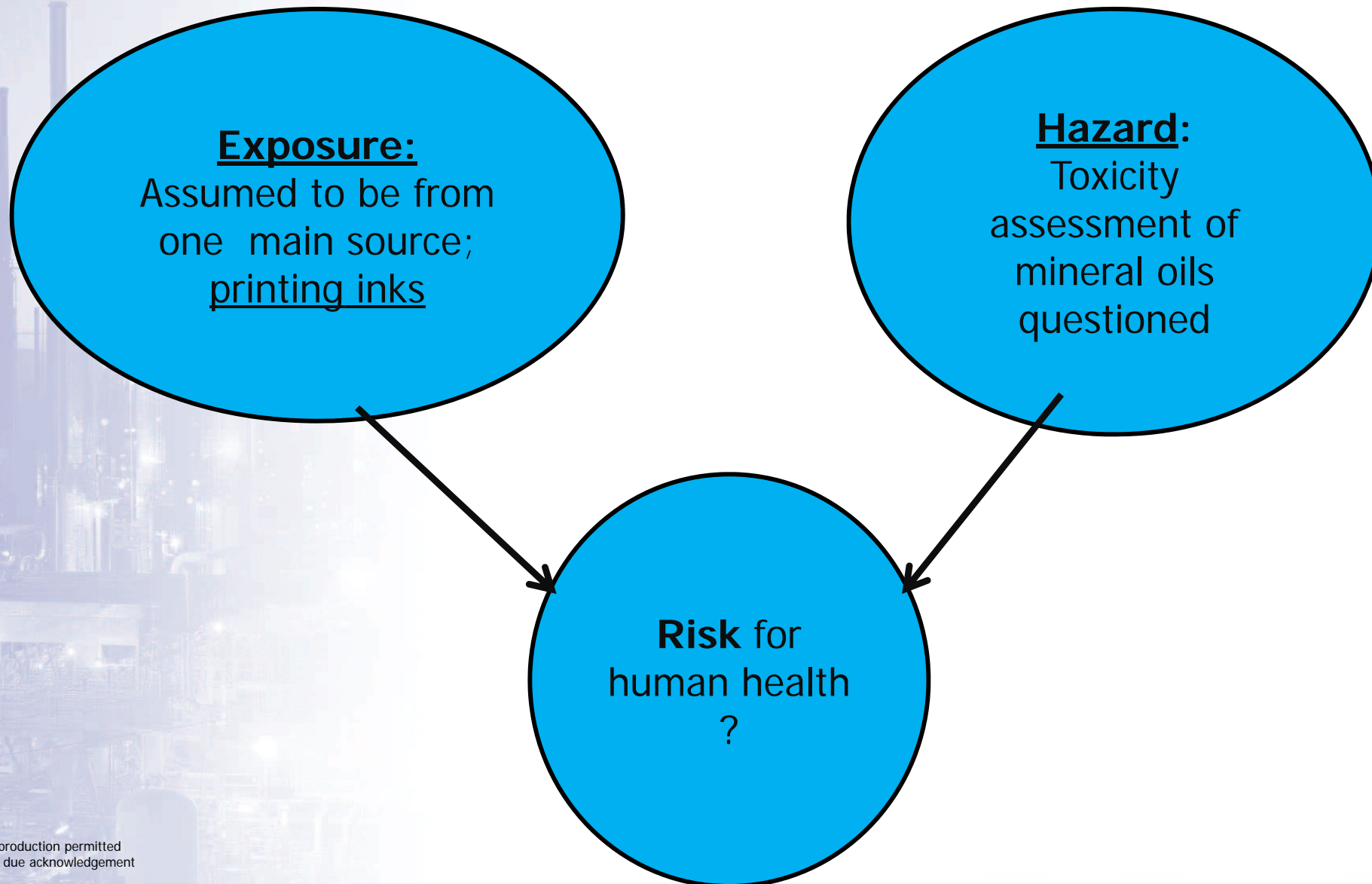
ORIGINAL PAPER

Is recycled newspaper suitable for food contact materials? Technical grade mineral oils from printing inks

Maurus Biedermann · Koni Grob

...” There is no toxicological evaluation of such technical oils”

Biedermann and Grob, 2010, page 795



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► EFSA - European Food Safety Agency:

“Scientific Opinion on Mineral Oil Hydrocarbons in Food”

➤ Set of recommendations and questions

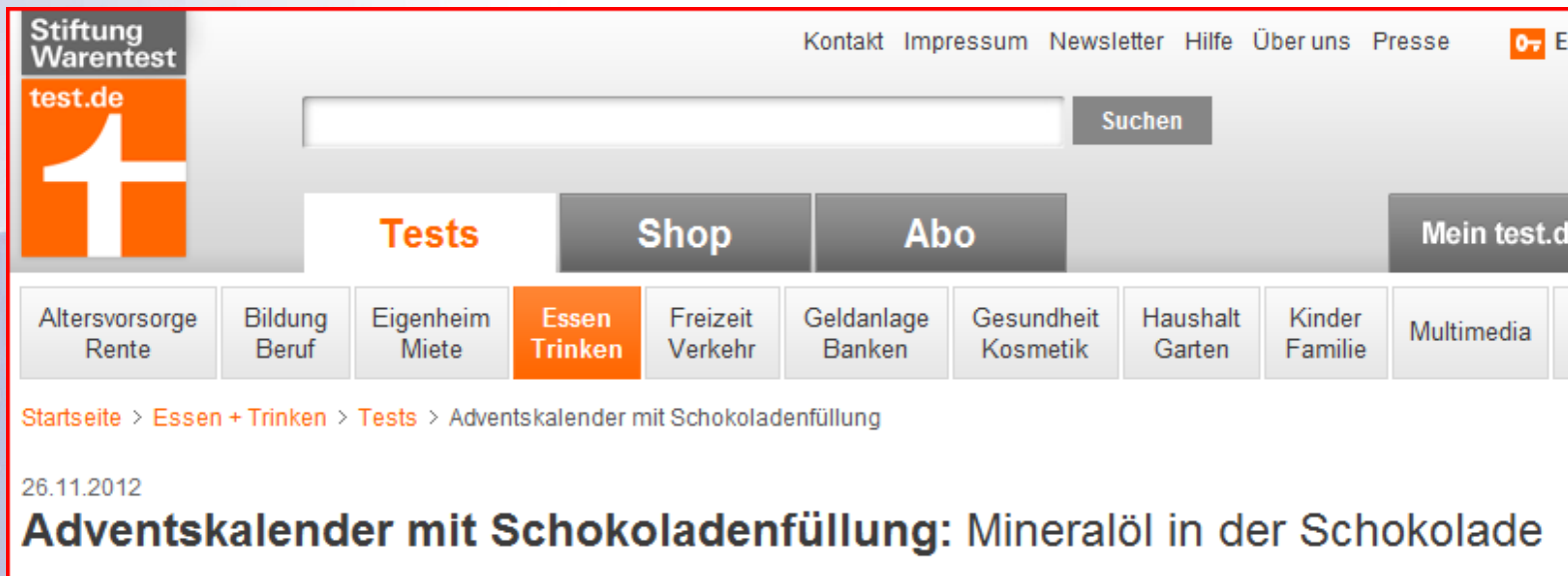
- Analytical methodologies
- Toxicological “open” questions
- Exposure assessment

► JECFA - Joint Expert Committee on Food Additives of FAO/WHO

➤ Withdrew ADI for Medium and Low viscosity MO

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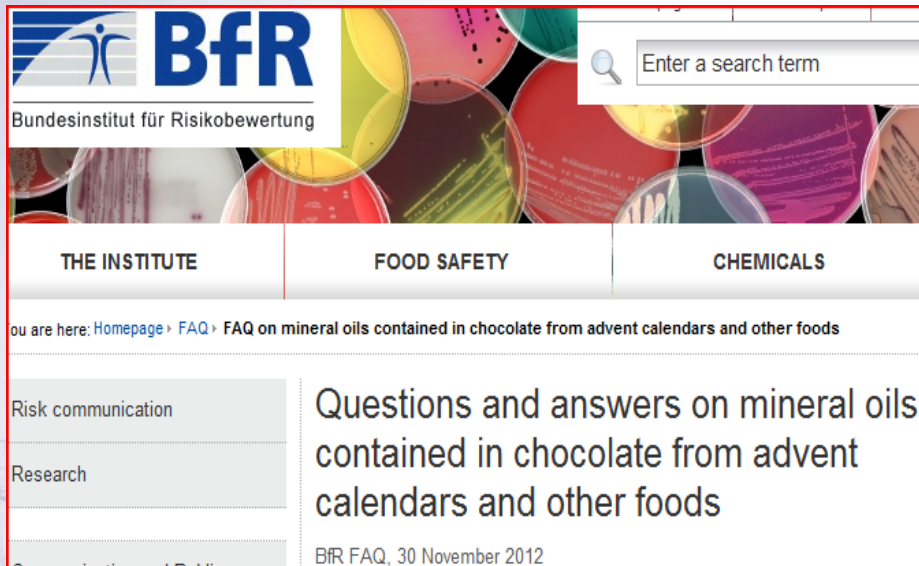
A German Consumer Protection Organisation:

Mineral oils at levels higher than 10mg/kg in chocolate from advent calendars and finds some to be contaminated with aromatic mineral oils.

Source of MO: recycled cardboard

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BfR position reflected in FAQ, 30 November 2012

- ▶ Source: printing ink inks and recycled paper in cardboard
- ▶ “Chemist” point of view: MO = MOSH + MOAH (in the context of food)
- ▶ Short Chain MOSH can be deposited in the body
- ▶ MOAH, predominantly alkylated aromatics, may be carcinogenic
- ▶ MOSH and MOAH not desired in food

Advise for prevention:

- ▶ by using virgin fibres
- ▶ by the use of mineral oil-free print colours
- ▶ By functional barriers

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PRESS RELEASE | 12 DEC.2012



Share

Darmstadt University analysis: packaging is not responsible for mineral oils found in chocolate from advent calendars

TU Darmstadt: reanalysis of samples showed that:

- a. 23/24 of cardboard used virgin fibers.

The *FFI* (*German association of folding box producers*) indicated that

- b. the printed material did not use MO-based inks.

So the source of MO:

- a. is NOT recycled cardboard
- b. Is NOT printing inks

How then?



FFI Jahresbericht 2012

DATEN DER BRANCHE, LEISTUNGEN
DES VERBANDS UND ZUKÜNFTIGE
HERAUSFORDERUNGEN



- ▶ What are the sources of hydrocarbons found in food?
- ▶ When do we talk about Mineral Oils and/or hydrocarbons?
- ▶ What do toxicology studies tell us?
- ▶ How to deal with fractions vs. products?

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Session 2

Setting the Scene on Mineral Oils: Let's talk about the same thing

- ▶ What are mineral oils and their composition?
- ▶ What are mineral oils, MOSH, MOAH and hydrocarbons?
- ▶ What can analytics tell us about MO and hydrocarbons?
- ▶ What do some industry branches say about MO?

Session 3

Toxicology of Mineral Oils: a close look at the hazard

- ▶ Review on MO toxicity and metabolism
- ▶ What human pathology experience show
- ▶ What are the current gaps and areas of concern regarding hazard?

Session 4

Risk Assessment: complex substances complex issue

- ▶ Best approach to assess risk of complex substances
- ▶ What does exposure data tell us about sources of MO?
- ▶ Identify areas for further work and refinement.

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Session 5

*Regulatory framework: **sound science as basis for regulatory approaches***

- ▶ What are the overlaps between legislations?
- ▶ What is the future in regional, community and global regulations regarding hydrocarbons in food and non-food applications?
- ▶ What tools do we need for compliance?

Session 6

*Analytical Methods for Mineral Oils: **what method(s) should be used?***

- ▶ What kind of methods are available and their applicability
- ▶ How to determine “intentional” from “non intentional” added hydrocarbons
- ▶ Can MOSH and MOAH analysis describe origin of hydrocarbons?
- ▶ What do we need to move forward?

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- ▶ Let's accept that we need to talk to one another
- ▶ Let's accept that we need a joint effort
- ▶ Let's use this opportunity to find solutions

Let's get started!

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