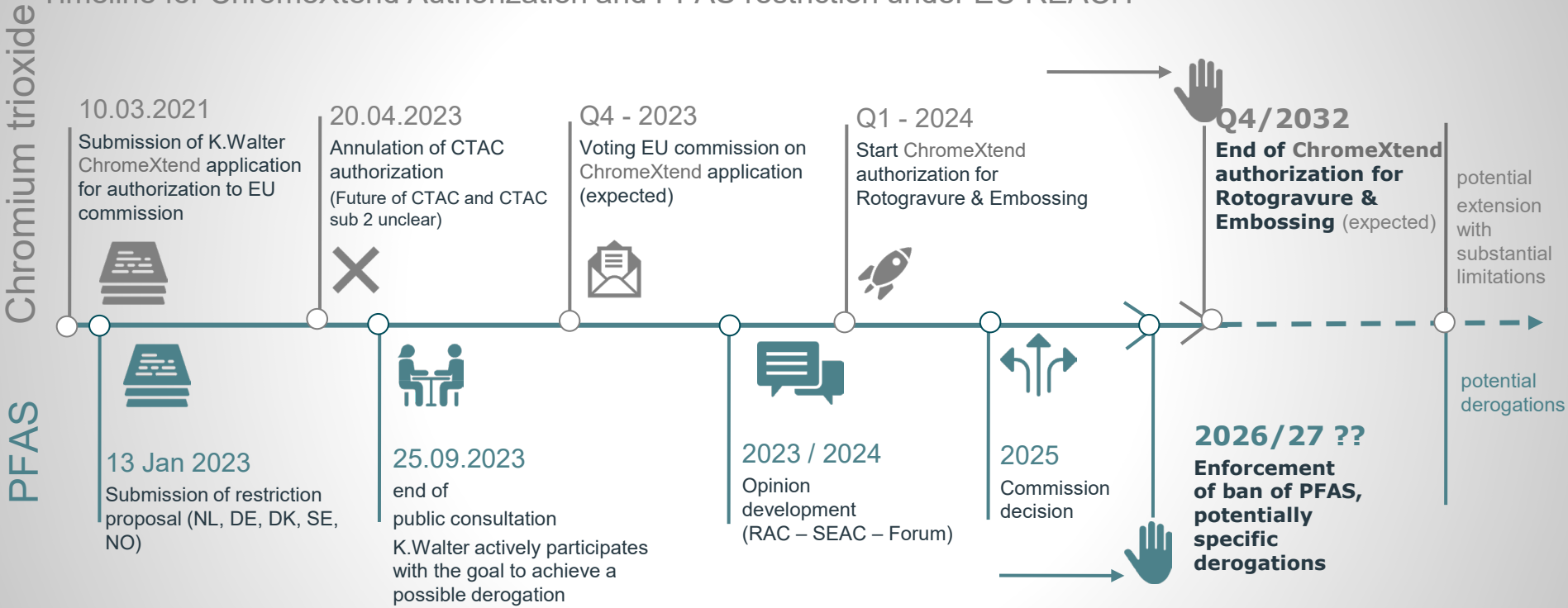
K.WALTER
PLATING AND PROCESSES

CURRENT SITUATION & SOLUTIONS FOR FUTURE CHROME PLATING IN EUROPE

Chromium trioxide & PFAS risk assessment of possible bans within the EU – for the gravure and embossing industry (17.07.2023)

Timeline for ChromeXtend Authorization and PFAS restriction under EU REACH



Note: PFAS is used as wetting agent for chromium trioxide electrolytes. Compliance with ChromeXtend authorization standards may not be possible without PFAS.

ChromeXtend

CTAC authorization annulled 04/2023

ChromeXtend - K.Walter authorization valid until Dec. 2032
EU authorization imminent (expected Q4?)

PFAS (used as a wetting agent in Cr plating) may be banned in 2027 with a potential derogation

2024 to Dec. 2032 period for substitution of chromium trioxide based technologies by other chromium trioxide & PFAS free Cr plating technology:
HelioChrome® NEO

HelioChrome® NEO

THE FUTURE AND SUSTAINABLE CHROME PLATING PROCESS FOR ROTOGRAVURE

Now ready & available!

(for packaging-size cylinders)

HelioChrome® NEO

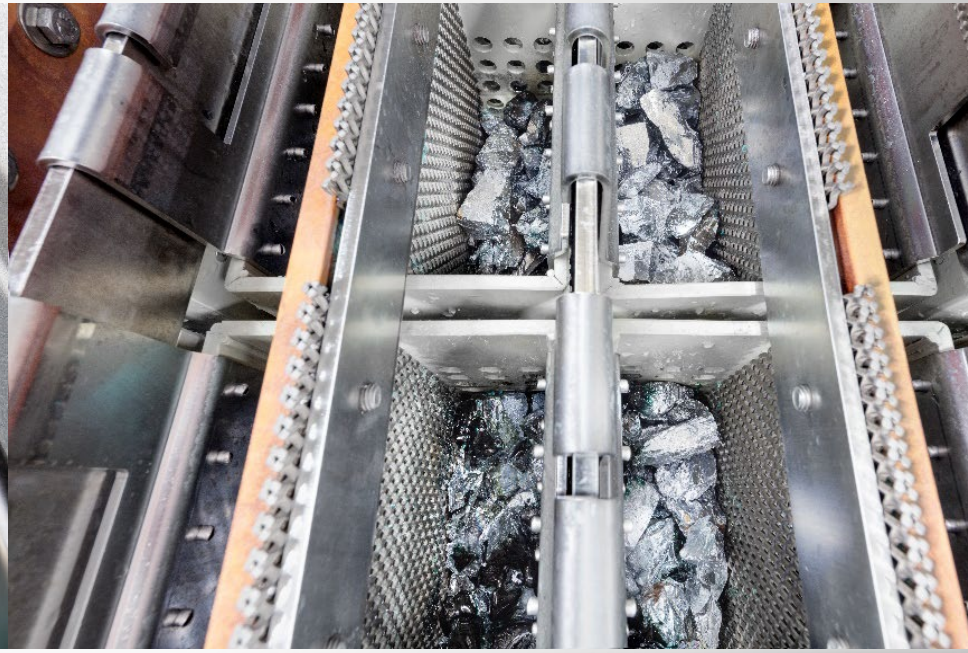
- ChromeVI - free
- PFAS - free
- Very low risk for workers & environment
- 30% less energy consumption
- 50% less water consumption

- No regulatory costs (ECHA/workers monitoring)
- Fully digital process supervision
- Easy integration into existing process

HelioChrome® NEO

HelioChrome® NEO machine / Chrome nugget dissolution cell

Greener and better technology



Our solutions!

ChromeXtend
Use of Chromium trioxide until Dec. 2032
EU authorization imminent (expected Q4 2023)

HelioChrome® NEO
The Future of hard chrome plating
Now available in Europe
(for packaging-size cylinders)

The new polymer based gravure printing form for short runs
(under development)

Newest information / please contact us!

chrome@kwalter.de

https://www.linkedin.com/company/k-walter-plating-and-processes/

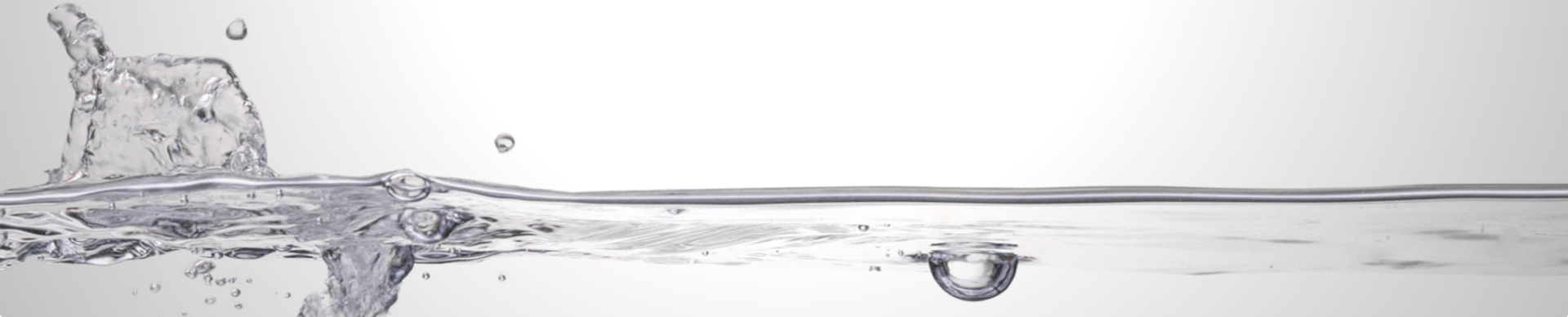
Participate in ERA digital and live events

ERA

also to find on LinkedIn

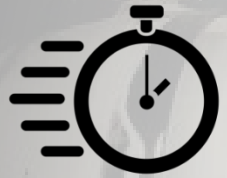
PRO
GRAVURE
MEETING

What is your Chrome strategy?




The new gravure printing-form

POLYMERIC - LASER ENGRAVE ABLE - MONOLAYER



FASTER

CHEAPER

BETTER QUALITY

THE CARACTERISTICS

COMPATIBLE WITH ALL EXISTING CYLINDERS AND ROTOGRAVURE PRESSES

- All existing steel, aluminum and copper cylinders can still be used
- No modifications to printing presses needed
- Open technology for alternative base cylinder structures

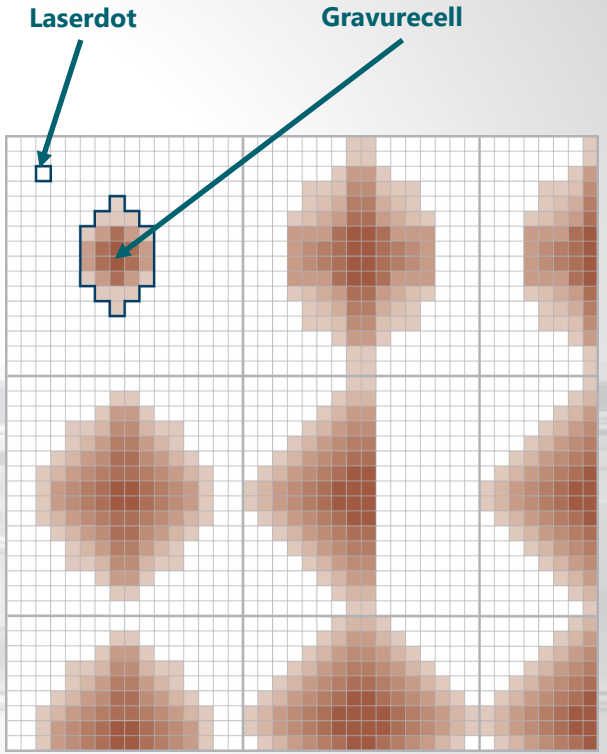
PROCESS FACTS

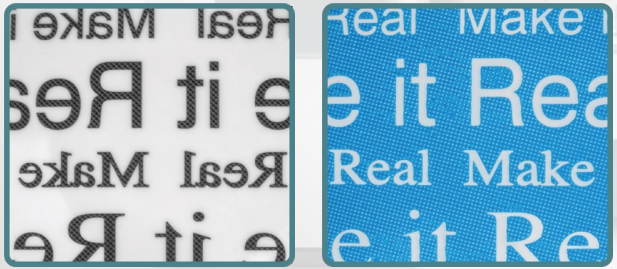
- No license for plating required
- No hazardous exhaust / no chemically polluted waste-water
- Approx. 80% reduction of energy cost
- Tremendous reduction of CO_2 footprint

THE ADVANTAGES OF DIRECT LASER IMAGING

ONLY DIRECT LASER OFFERS

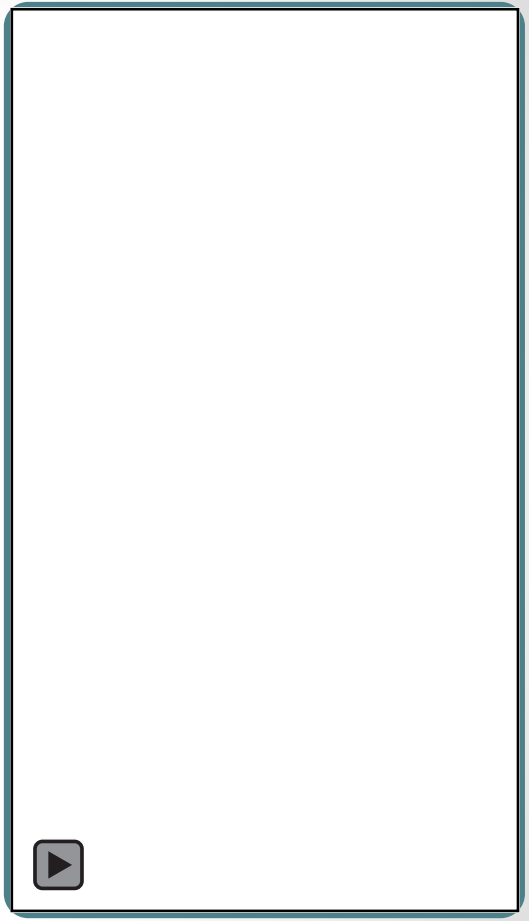
- Unlimited variety of cell shapes / specific cell shape for a specific color/ink
- Best possible adaptation characteristics for 7c extended color gamut
- No saw-tooth effect / perfect line work
- 3D image setter with basically zero limitations
- HD Imaging Quality





THE STATUS OF THE DEVELOPMENT PROJECT

- Test installation @ K. Walter
- Several successful print runs at WuH and HDM
- Run stability of 100,000 meters
- Industrialization of the complete process
- Frequent print runs at HDM Stuttgart with different inks & substrates
- Continous production of test cylinders



PRINT RUN @ HDM STUTTGART –2021

THANK YOU!