The Responsible e-Waste Guideline

and… European e-Waste Leakage / Dioxin in Eggs

Basel Action Network with the International POPs Elimination Network

May 2, 2019, Geneva, Switzerland

Program:

1 European e-Waste Poisons Africa's Food Chain

-- RNDr. Jindrich Petrlik
Executive Director
Arnika / Toxics and Waste

IPEN
a toxics-free future

Program:

2 The Responsible Guideline for e-Waste Trade

-- Jim Puckett
Founder and Director of
Basel Action Network

basel action network

Program:

3 Holes in the Circular Economy: WEEE Leakage from Europe

-- Jim Puckett
Founder and Director of
Basel Action Network

basel action network

Program:

1 European e-Waste Poisons Africa's Food Chain

-- RNDr. Jindrich Petrlik
Executive Director
Arnika / Toxics and Waste

IPEN
a toxics-free future

The E

Joseph DiGangi, Ph.

Keep the Pro

Persistent Organic Pollutants (POPs) in Eggs: Report from Africa

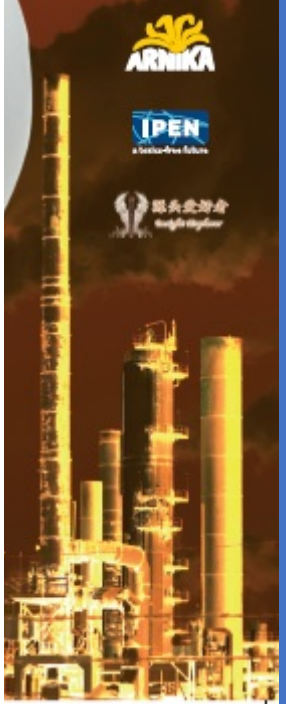
AUTHORS:
Jindřich Petrlik – Sam Adu-Kumi – Jonathan Hogarh – Eric Akortia – Gilbert Kuepouo – Peter Behnisch – Lee Bell – Joseph DiGangi

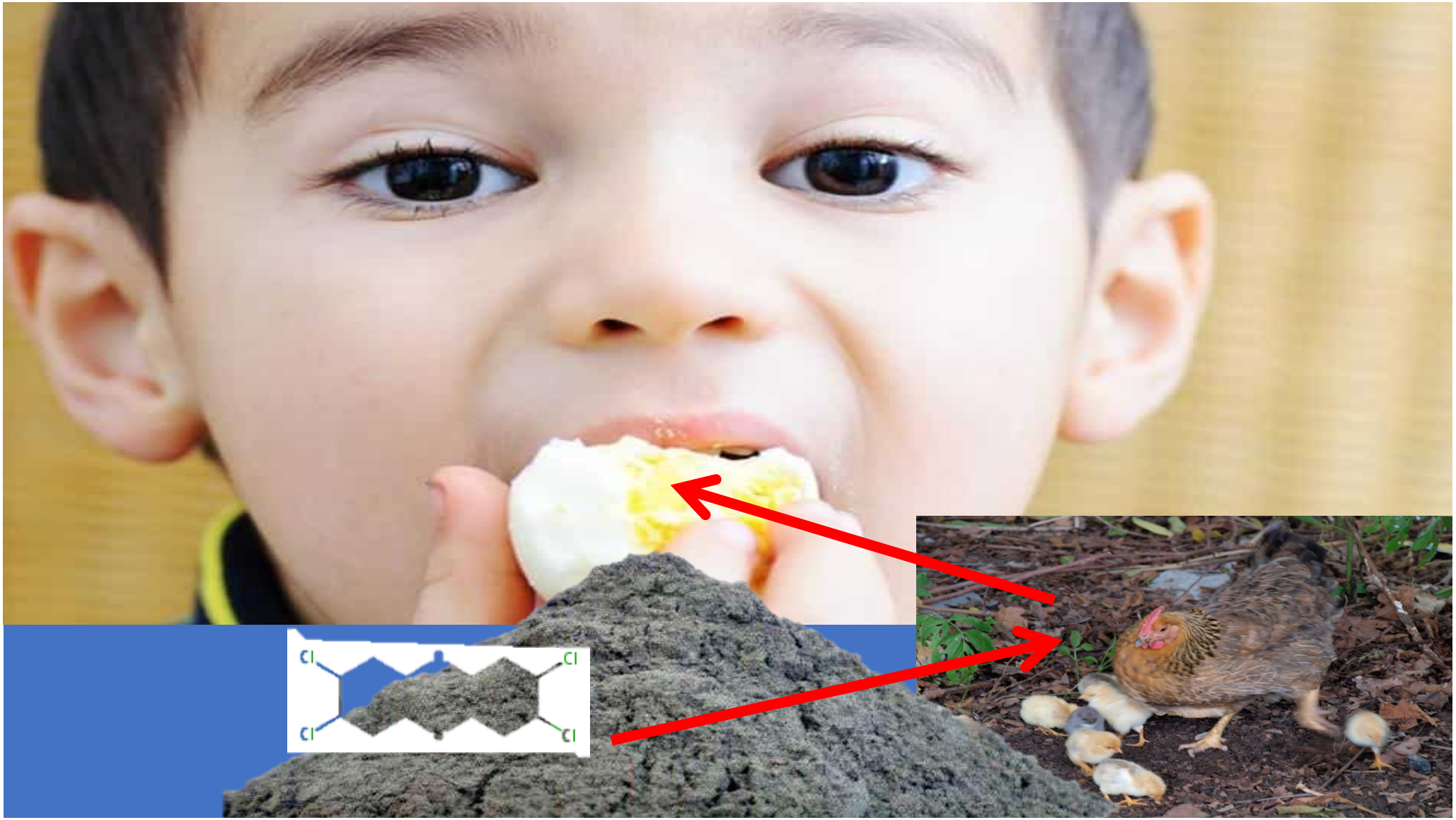
APRIL, 2019

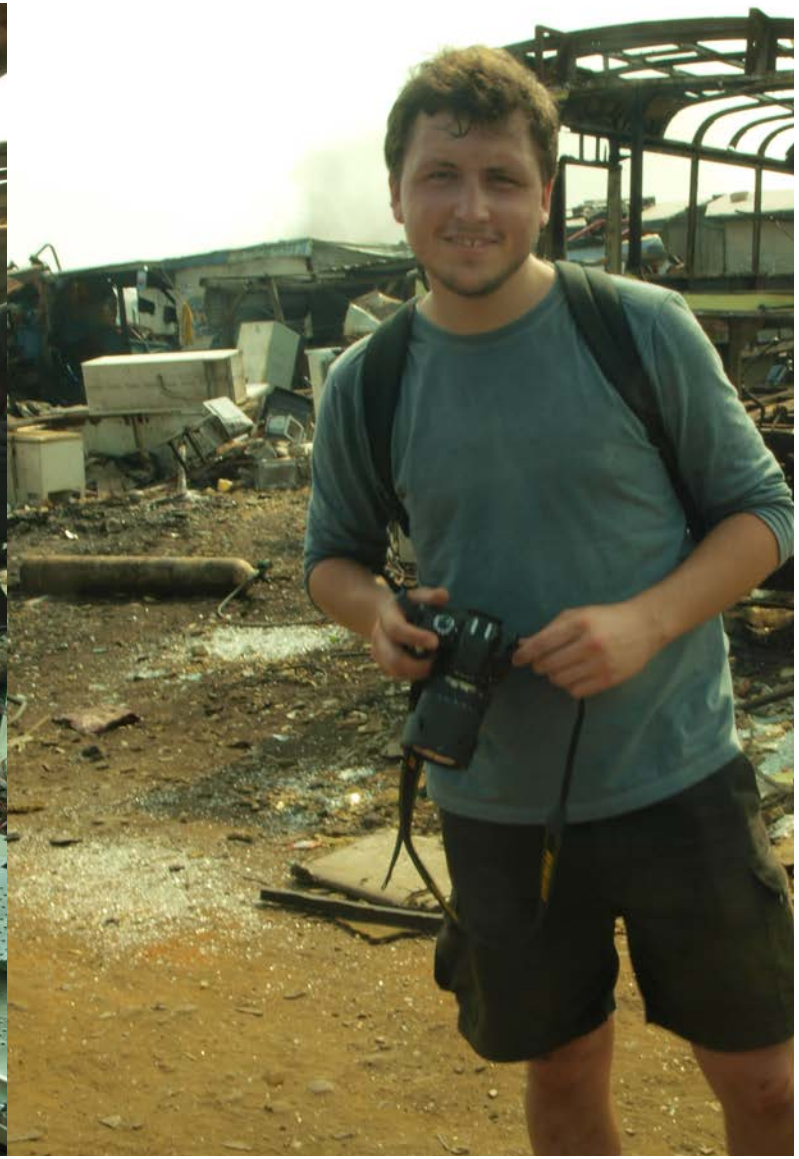
中
物 (POPs)

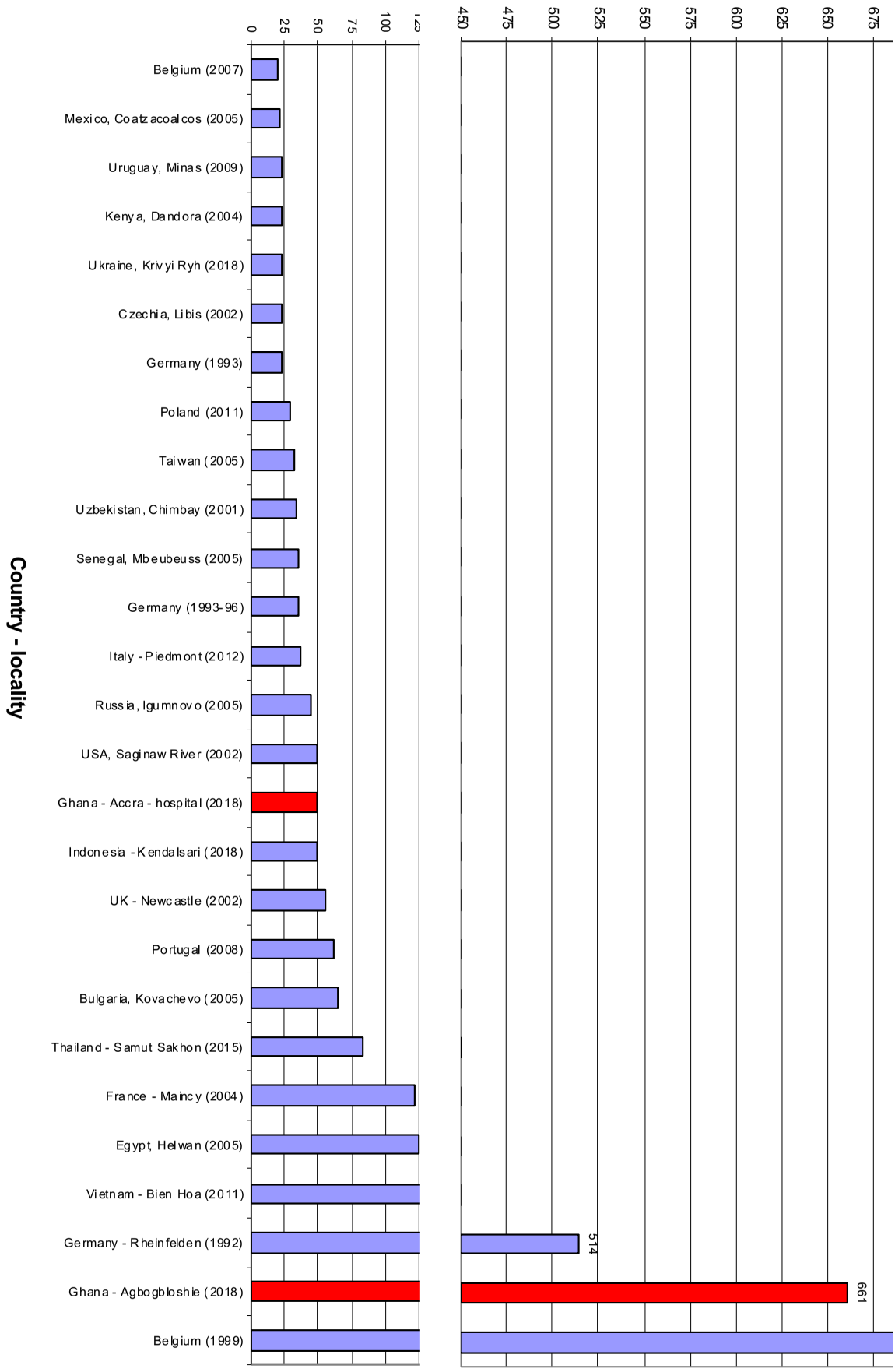
ARNIKA

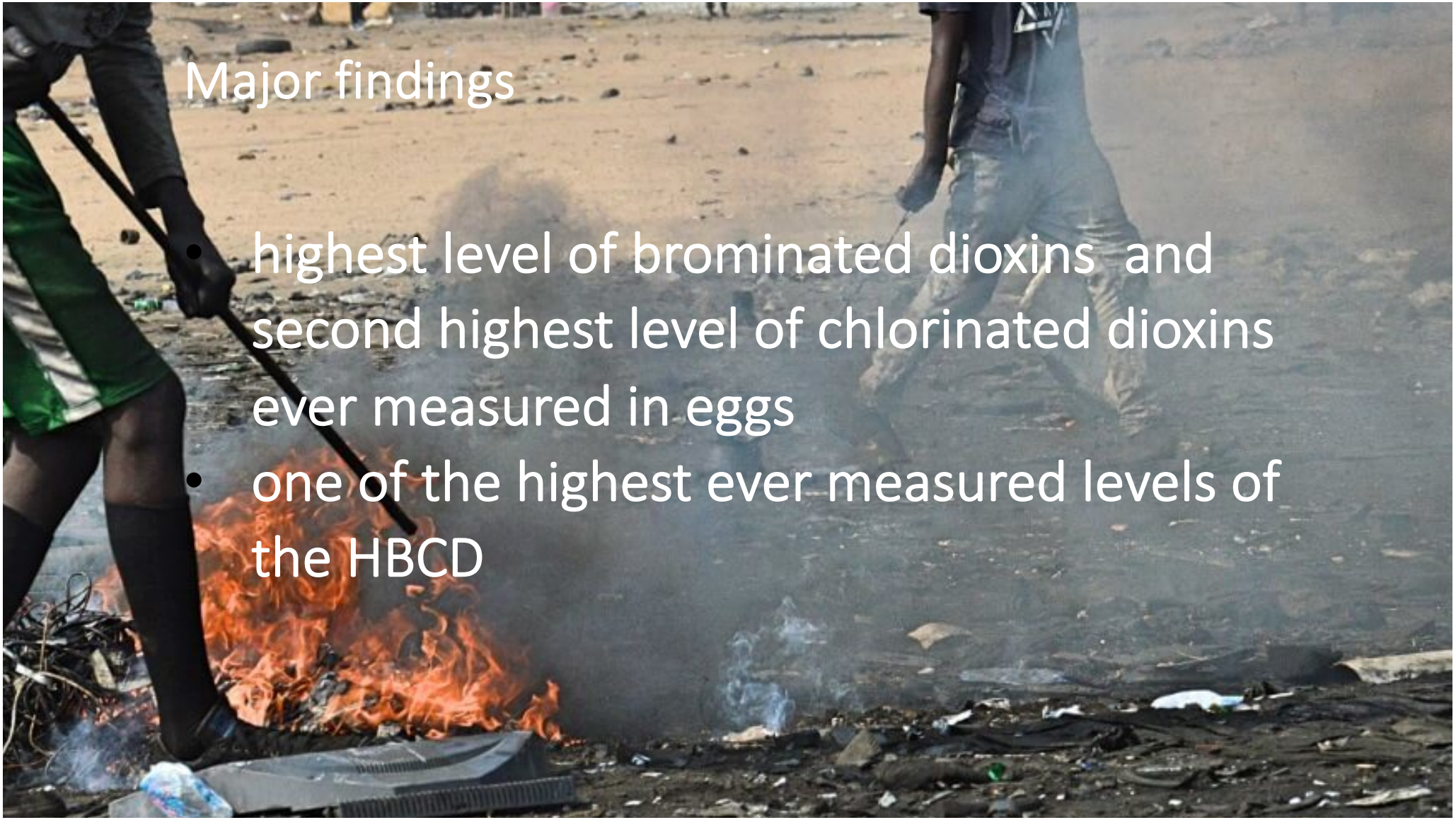
IPEN




Cl
Cl
Cl
Cl

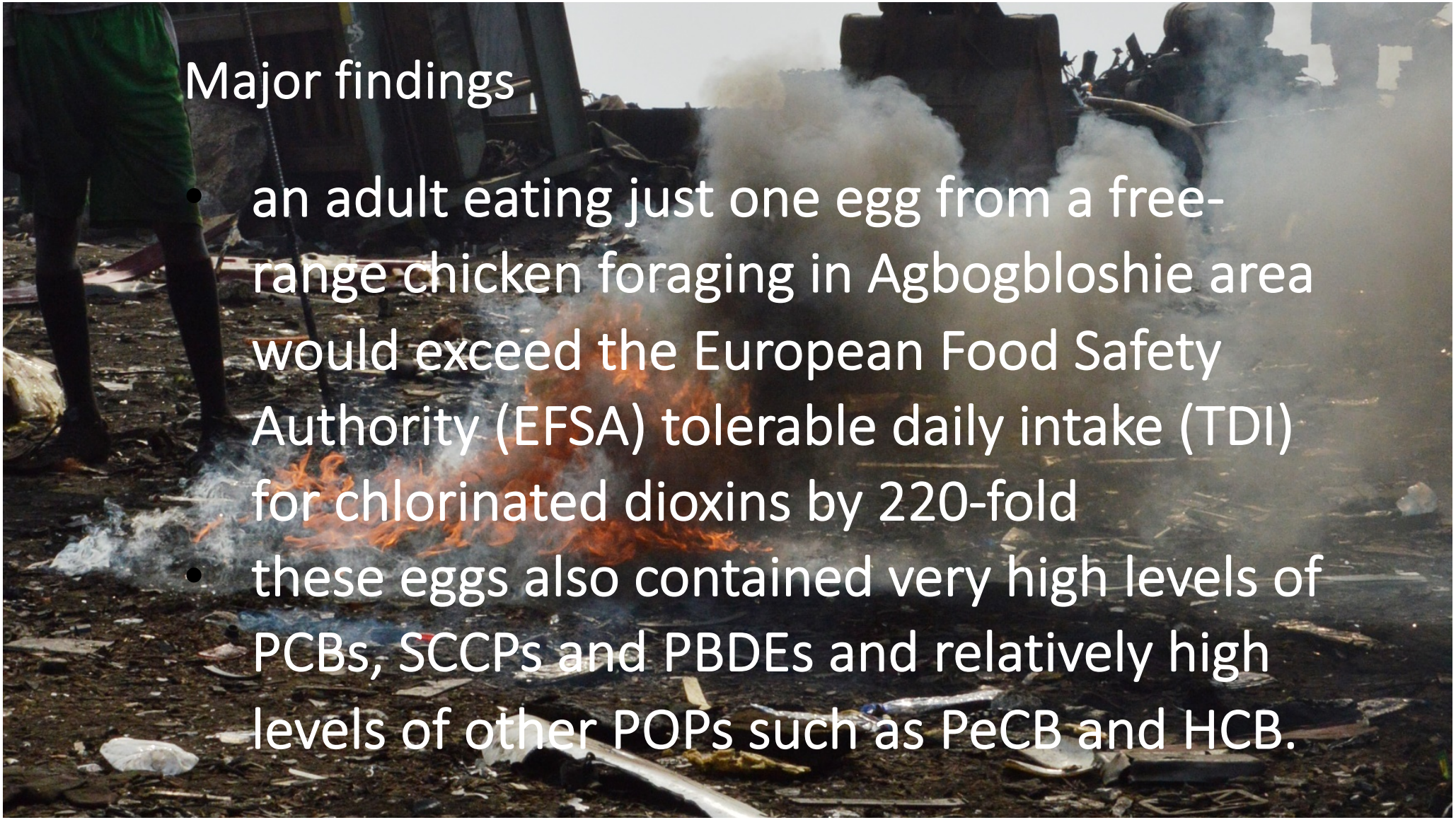



Measured level in pg g-1 (WHO-TEQ) of fat
Country - locality
0
25
50
75
100
125
450
475
500
525
550
575
600
625
650
675
Belgium (2007)
Mexico, Coatzacoalcos (2005)
Uruguay, Minas (2009)
Kenya, Dandora (2004)
Ukraine, Krivyi Ryh (2018)
Czechia, Libis (2002)
Germany (1993)
Poland (2011)
Taiwan (2005)
Uzbekistan, Chimbay (2001)
Senegal, Mbeubeuss (2005)
Germany (1993-96)
Italy - Piedmont (2012)
Russia, Igumnovo (2005)
USA, Saginaw River (2002)
Ghana - Accra - hospital (2018)
Indonesia - Kendalsari (2018)
UK - Newcastle (2002)
Portugal (2008)
Bulgaria, Kovachevo (2005)
Thailand - Samut Sakhon (2015)
France - Maincy (2004)
Egypt, Helwan (2005)
Vietnam - Bien Hoa (2011)
Germany - Rheinfelden (1992)
Ghana - Agbogbloshie (2018)
Belgium (1999)
514
661



Major findings

- highest level of brominated dioxins and second highest level of chlorinated dioxins ever measured in eggs
- one of the highest ever measured levels of the HBCD



Major findings

- an adult eating just one egg from a free-range chicken foraging in Agbogbloshie area would exceed the European Food Safety Authority (EFSA) tolerable daily intake (TDI) for chlorinated dioxins by 220-fold
- these eggs also contained very high levels of PCBs, SCCPs and PBDEs and relatively high levels of other POPs such as PeCB and HCB.

- Stricter limits for POPs wastes will help to regulate POPs containing waste exports to African countries
- 50 mg/kg for PBDEs
- 1 μg TEQ/kg for PCDD/Fs + dl-PCBs
- 100 mg/kg for SCCPs and HBCD

Questions?

Program:

2 The Responsible Guideline for e-Waste Trade

-- Jim Puckett
Founder and Director of
Basel Action Network

basel action network

History of the e-Waste Technical Guidelines (export for repair question)

Mobile Phone Partnership Initiative (MPPI)

- Among other Guidelines created by the MPPI, a Guidance on Transboundary Movement was created
- That guideline established the fundamental default for determining waste v. non-waste as being functionality and required testing.
- Then they grappled with a possible repair exception. Are exports for repair wastes?

History of the e-Waste Technical Guidelines (export for repair question)

Mobile Phone Partnership Initiative (MPPI)

- This debate was intense but led to two procedures

1. A Decision Tree Procedure
    - recognized that any movement of non-functional equipment for repair involving the disposal (Annex IV) of hazardous parts in the receiving country was considered a shipment of waste to be controlled under Basel Convention.

History of the e-Waste Technical Guidelines (export for repair question)

2. A Voluntary Notification Procedure (allowed exports for repair when waste v. non-waste question was ambiguous for countries but still with applied PIC on a voluntary basis)

- Both MPPI procedures gave governments prior notification and right to consent or refuse shipments.
- Thus there was the ability to enforce the fundamental principles of the Convention (including for exports for repair). PIC procedure, right of refusal, and ESM.

History of the e-Waste Technical Guidelines (export for repair question)

Partnership for Action on Computing Equipment (PACE)

- PACE also created a special guideline for TBM **(2011)**
- They adopted the exact same procedures as MPPI

But then…..

- Some asserted a need to extend Party guidance to all WEEE, not just phones or computing equipment
- Done by Parties not by a Partnership

→ **New TBM Guideline for e-Waste was undertaken.**

History of the e-Waste Technical Guidelines (export for repair question)

TBM Technical Guideline Debated (2010 – 2015)

- Increasingly Electronics Manufacturers and EU began promoting a position that turned the functionality standard on its head.
- Non-functional waste claimed for repair could fall outside of the scope of the Convention. (para 31b)

Despite a Lack of Consensus – Guideline Adopted on an "Interim Basis" with outstanding issues – COP12 (2015)

COP14: Massive Loophole Remains

New Expert Working Group formed (2015 - 2019)

- Mandate: to solve outstanding questions regarding criteria for delisting Repairables from Convention.
- Still dissatisfaction with 31(b)
- Begging question – why the MPPI / PACE approach was abandoned? Was this done just for industry?

Now there is some new language added but most does not change 31(b) loophole. All of the problems remain.

COP14: Massive Loophole Remains

→ 31(b), declares that *broken, untested, or non-working equipment* that are claimed to be destined for failure analysis, repair or refurbishment can be considered as falling outside of the scope of the Basel Convention, without requiring any Basel controls as long as the export arrangement meets 5 very minimal requirements.

Only Requirements to Export as Non-Waste

1. **The trader must claim that the non-functional electronic equipment is being exported for failure analysis or repair.**

-- One can do this even if it will not be so destined because it will be very rare that anybody will have an opportunity to actually check.

Only Requirements to Export as Non-Waste

2. The exporter needs to sign a contract with importing country partner that will assert ESM, proper management of residuals, and make a final report.

-- Because this is simply a contract between two private parties it does not matter if it is upheld. No government is likely to look at it unless there is a dispute. Further, a violation of a contract is a matter of civil law and not criminal. It will be impossible for the government to enforce the contract.

Only Requirements to Export as Non-Waste

3. The exporter must make a declaration, that none of the equipment within the consignment is defined as or considered to be waste in any of the countries involved in the transport.

-- It is entirely inappropriate for a private business (e.g. a broker or recycler) to make a declaration of law and assert compliance. If caught they can plead ignorance.

Only Requirements to Export as Non-Waste

4. Ensure that each piece of equipment is individually protected against damage

-- Plastic shrink wrap or cardboard separators are very cheap so this requirement is easily accommodated and not an insurance policy against receiving shipments of junk toxic scrap equipment that will never be reused.

Only Requirements to Export as Non-Waste

5. Documentation is to accompany the shipments as to the origin and nature of the equipment, the existence of the contract and declaration.

-- Such documentation is easy to provide but what good will it really be? Parties will not have prior notification that the shipment is being imported – burden placed on importing countries to detect shipments and then analyze the paperwork to see that it is all correct.

Current Guideline: Fatal Flaws

No PIC: "prior informed consent" for hazardous waste equipment deemed "repairable" is not required. Thus:

- No monitoring, enforcement, transparency.
- No ability for the importing or transit states to know what e-wastes they are receiving.
- Diminished ability to conduct enforcement unless they open each and every possible transboundary shipment.
- When enforcement happens, shipment has already arrived and is likely to be abandoned in importing state.

Current Guideline: Fatal Flaws

No ability for exporting states to check on exporters: The obligations that Basel places on Parties to ensure that the exports are handled correctly and by a responsible company are lost.

- Any company or broker, no matter their track record, can exercise this loophole.
- Only if the contract comes to light, will Parties know anything about who the exporters are.

Current Guideline: Fatal Flaws

No ability to check repair operations: The Guideline provides no formal registry of where these repair activities will take place – it's all in a cloak of contractual secrecy.

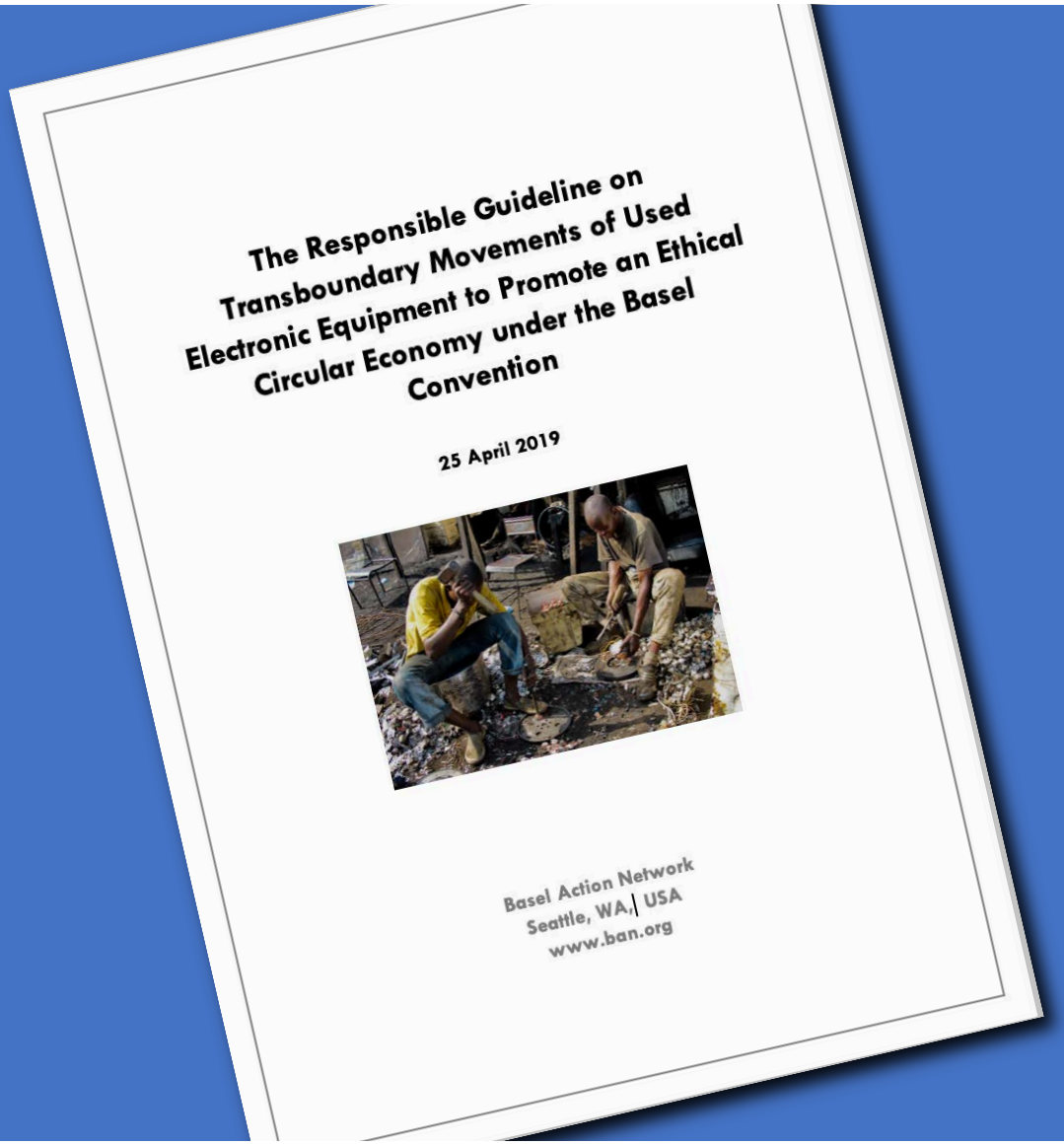
- How can any State Concerned know whether the facility is environmentally sound, permitted or not?

Current Guideline: Fatal Flaws

Violates Intent and Purpose of Ban Amendment: Once the Ban Amendment is in force (currently only 2 more Parties are needed), exports of repairables from Annex VII to non-Annex VII countries will violate the Ban Amendment.

- Export of equipment for repair involves the export of hazardous components deemed not repairable (economically unrepairable parts or whole equipment).
- Those that ratified the Ban Amendment never bargained for this delisting.

The Responsible Guideline to Promote an Ethical Circular Economy



Differences Between the Official and the Responsible Guidelines on the Transboundary Movement of Used Electronic Equipment		
Issue	**Official Guideline**	**Responsible Guideline**
Default policy on determining waste from non-waste for electronics	A claim of "Repair" can allow exporters to avoid the Basel Convention controls and norms.	Export as non-waste of non-Functional Electronic Equipment for repair is a strictly limited exception to the basic rule that non-functional equipment is waste.
Consistency with Africa's Bamako Convention and EU law	Violates Bamako Decisions stating that non-functional equipment is waste and likewise violates EU WEEE directive which requires functionality testing to assure equipment is non-waste prior to export.	YES

Issue	Official Guideline	Responsible Guideline
Prevents obsolete equipment containing mercury, asbestos, PCBs, and CRTs from ever being exported as non-waste unless it is fully functional with a re-use market.	NO	YES
Ensures Parties have prior knowledge to all imports of non-functional electronic equipment and where it will be processed.	NO	YES
Ensures Parties have the right to refuse imports of non-functional electronic equipment.	NO	YES

Issue	Official Guideline	Responsible Guideline
Ensures Parties have the right to only allow permitted, approved ESM facilities manage imports of non-functional electronic equipment.	NO	YES
Ensures Parties only allow permitted, approved exporters to exercise the exception to ship non-functional equipment as non-waste.	NO	YES
Recognizes that export for repair can involve Annex IV (waste management) operations.	NO	YES
Respects the object and purpose of the Basel Ban Amendment.	NO	YES

The Legitimate Repair Operations Exemption

- Two categories only:
  - **Professional equipment** for repair, refurb, or failure analysis
  - **Qualified Consumer Equipment** (not containing CRTs, mercury, PCBs, asbestos, ozone depleting substances or flammable gases and liquids).
- Exporter and Importing facility must pre-register with their CAs.
- Information is registered on the National Reporting Database .
- Countries ensure ESM (facilities) and Responsible Exporters.
- Trade takes place with contract, proper packaging, movement docs and feedback report.
- Ban Amendment: Exports from Annex VII – all residuals must go to Annex VII.

IN SUMMARY

- A Guideline is a Guideline: Anybody Can Make One
- Parties can Choose to Use one or not
- We hope Parties will Choose to Use Guidelines:
  - That Foster an Ethical Circular Economy;
  - Are Consistent with the Basel Principles;
  - Don't Undermine the intent and Purpose of Ban Amendment.
- Only One Guideline Currently Achieves these Aims.

basel action network

Champions of environmental health & justice

About Us | What We Do | News | Support Us | DONATE

Endorse the Responsible e-Waste Guideline

The Responsible Guideline on Transboundary Movements of Used Electrical and Electronic Waste to

www.ban.org/the-responsible-guideline

Endorse the Alternative Basel Guideline

Based on the summary description of the Responsible Guideline above, on behalf of my organization I am happy to publicly endorse the guideline:

Name *

First Name

Last Name

Email *

Organization or Government or Company *

Country *

I would prefer to postpone my endorsement until the full guideline is published at which time you will contact me at the email above.

SUBMIT

Questions?

Program:

3 Holes in the Circular Economy: WEEE Leakage from Europe

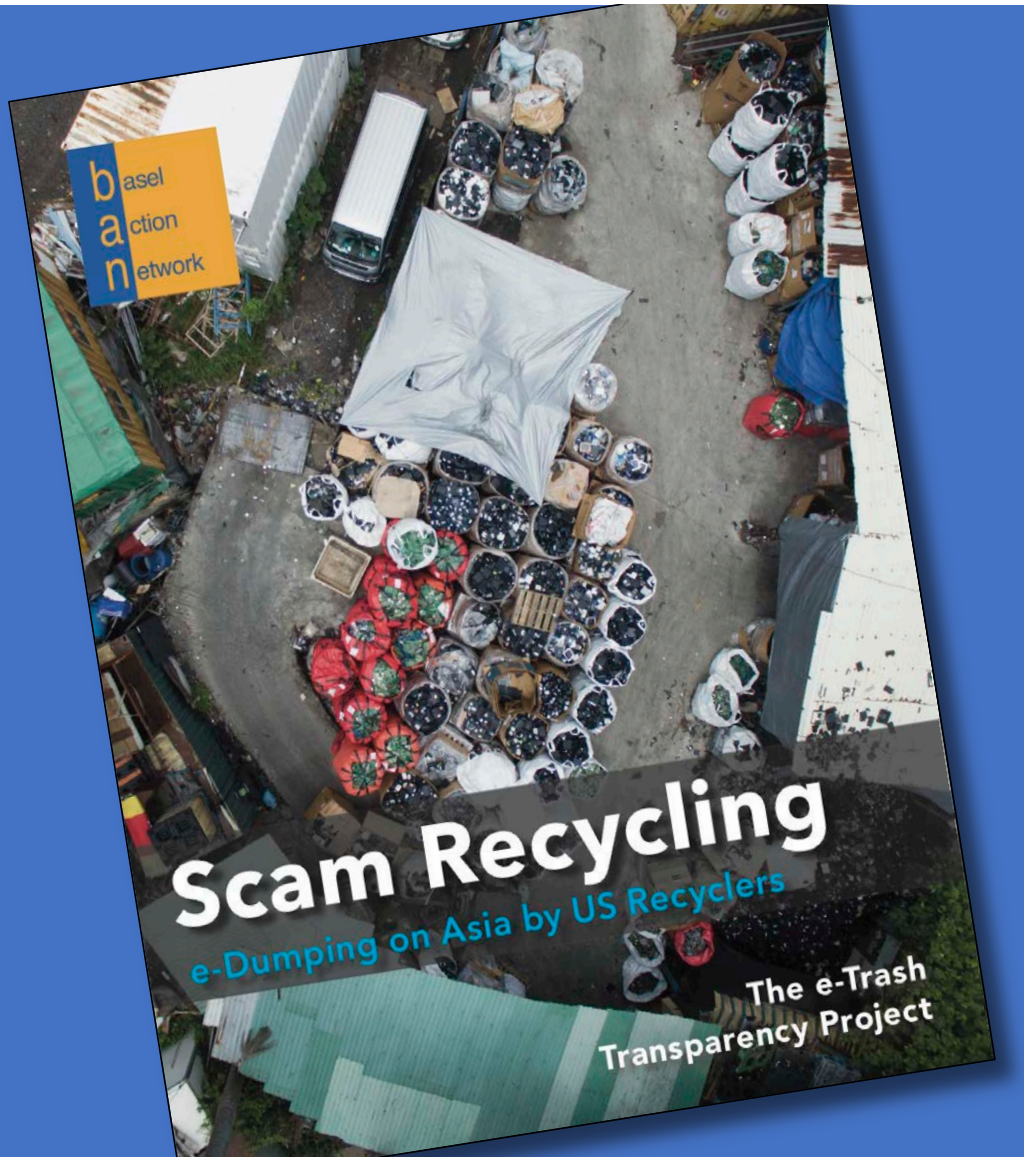
-- Jim Puckett
Founder and Director of
Basel Action Network

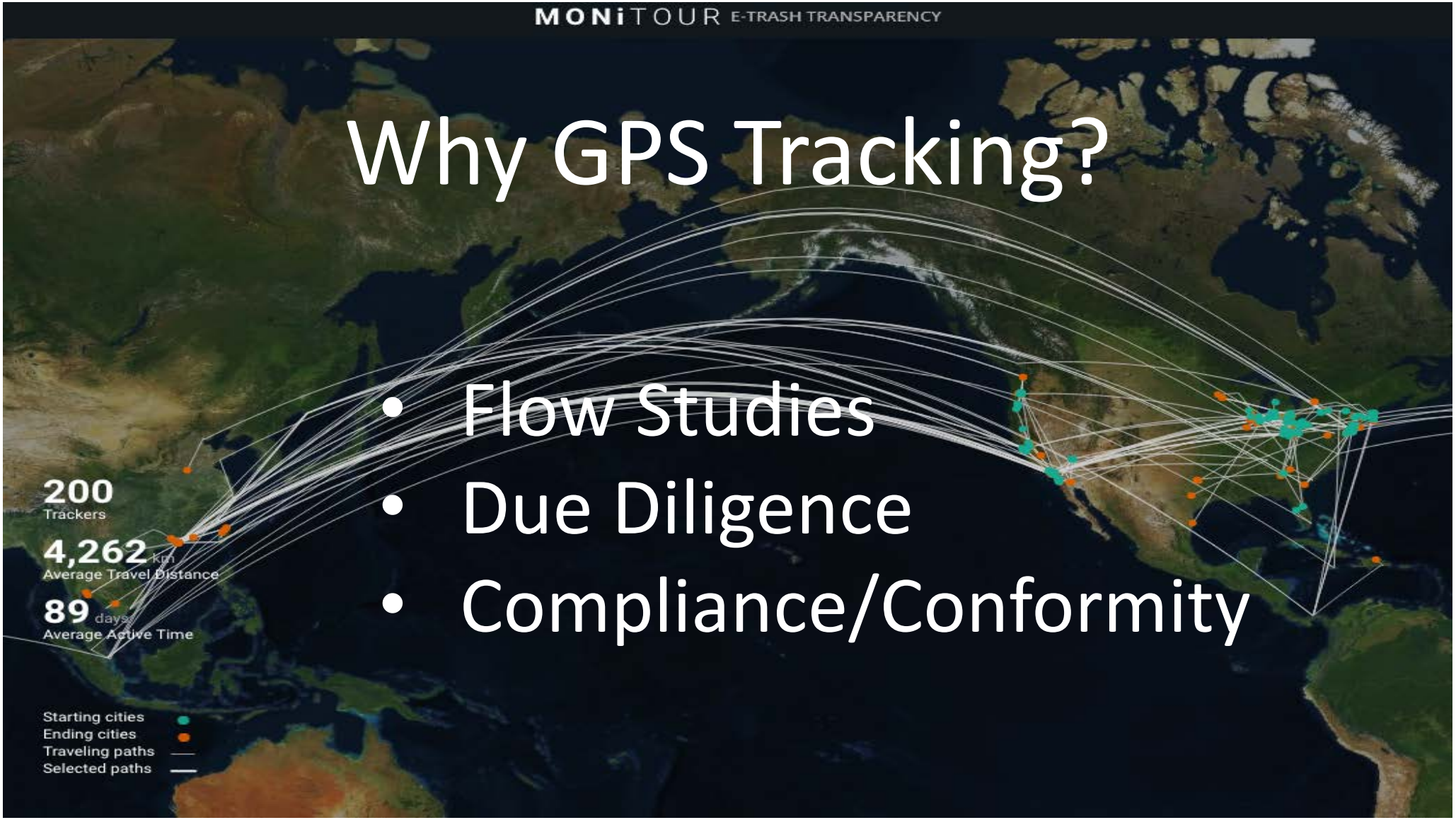
basel action network

e-Trash Transparency Project

2015-2020

Using GPS tracking devices to follow e-waste flows





Why GPS Tracking?

- Flow Studies
- Due Diligence
- Compliance/Conformity

General Benefits of GPS Tracking

1. **Provides Real Data from Actual e-Waste Trade**
   a) Not relying on faulty Harmonized Tariff Code Data
   b) Not relying on surveys of traders/recyclers
   c) Not relying on in-person audits
2. **Data can reveal Entire Chain of Export Worldwide** (deployment location, intermediaries, exporter, port of exit, port of entry, importer, etc. worldwide)
3. **One can assess end-points/realize environmental fate**.
4. **Provides no false positives**
5. **Cost Effective:** Tool for Due Diligence and Enforcement

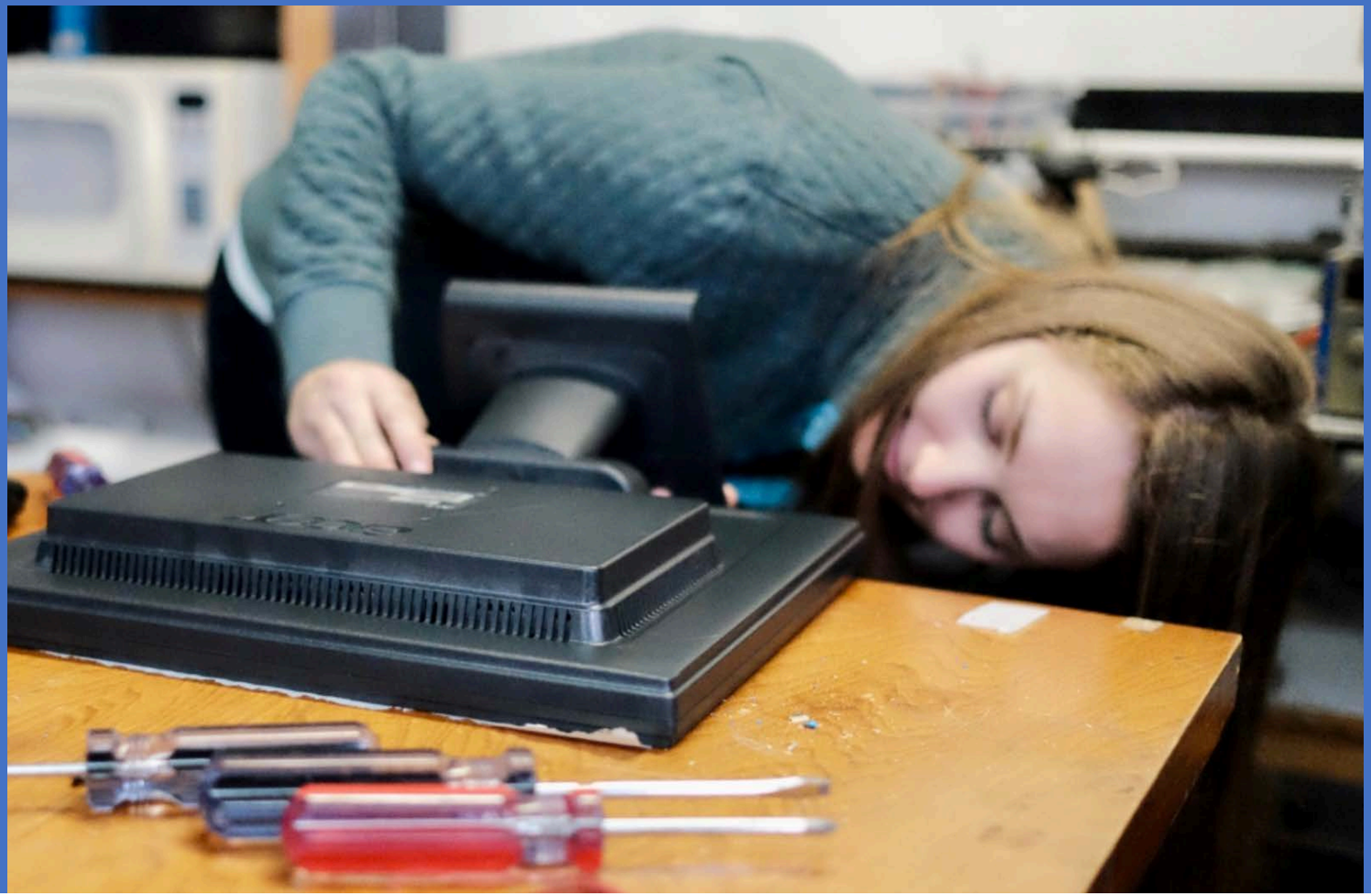
Some Drawbacks

1. **Trackers need large batteries to last more than 1yr.**
   a) Can only install in larger equipment (not mobiles)
2. **Do not always provide GPS signals or signals at all**
   a) Can be covered up in a stack or dense building
   b) And only give cell signals or none at all
   c) There can be false negatives
3. **Studies can be expensive to achieve good sample size**
   a) Hardware, Software and Service Fees (e.g. phone)
   b) Labor to install and deploy, and travel cost
   c) Count on about 400$/per tracker for a+b above

How the Trackers Work

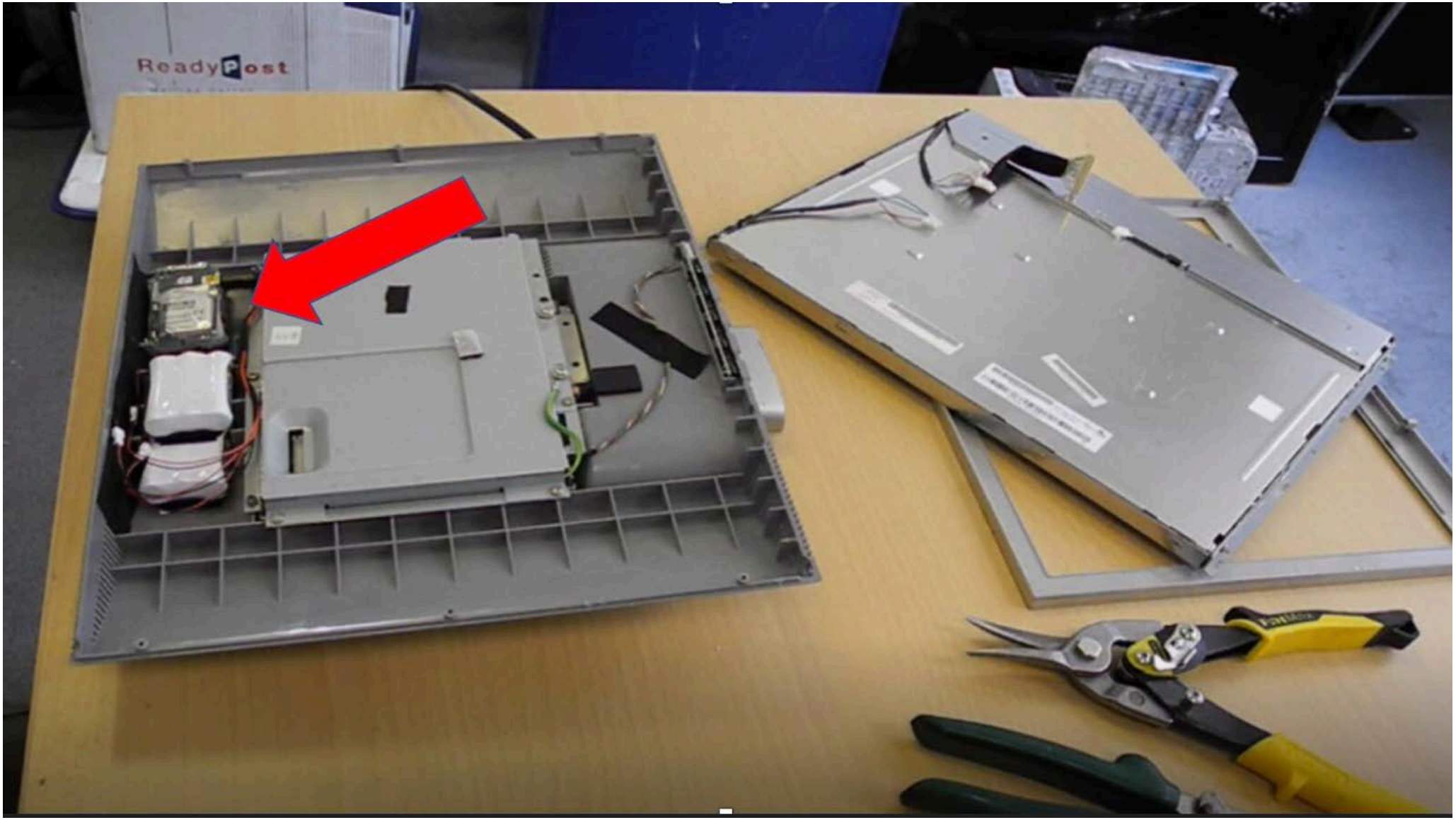
- Think of the tracker as a “Smart Phone” with GPS signal reader and a large battery
- A “Sleep Mode” to save battery life (9-15 months life)
- Can be programmed remotely, e.g. wake up frequency.
- Upon “wake up”, it “looks for” satellites.
- If it finds 3 or more satellites it sends a cell phone text message to our server with GPS read of latitude and longitude.
- If it can’t find a satellite it simply reports via nearest cell tower, with latitude and longitude of tower.
- “Satellite reads” very accurate. (~ 4 meter radius), “Cell reads” (~ 5 km radius).

Methods

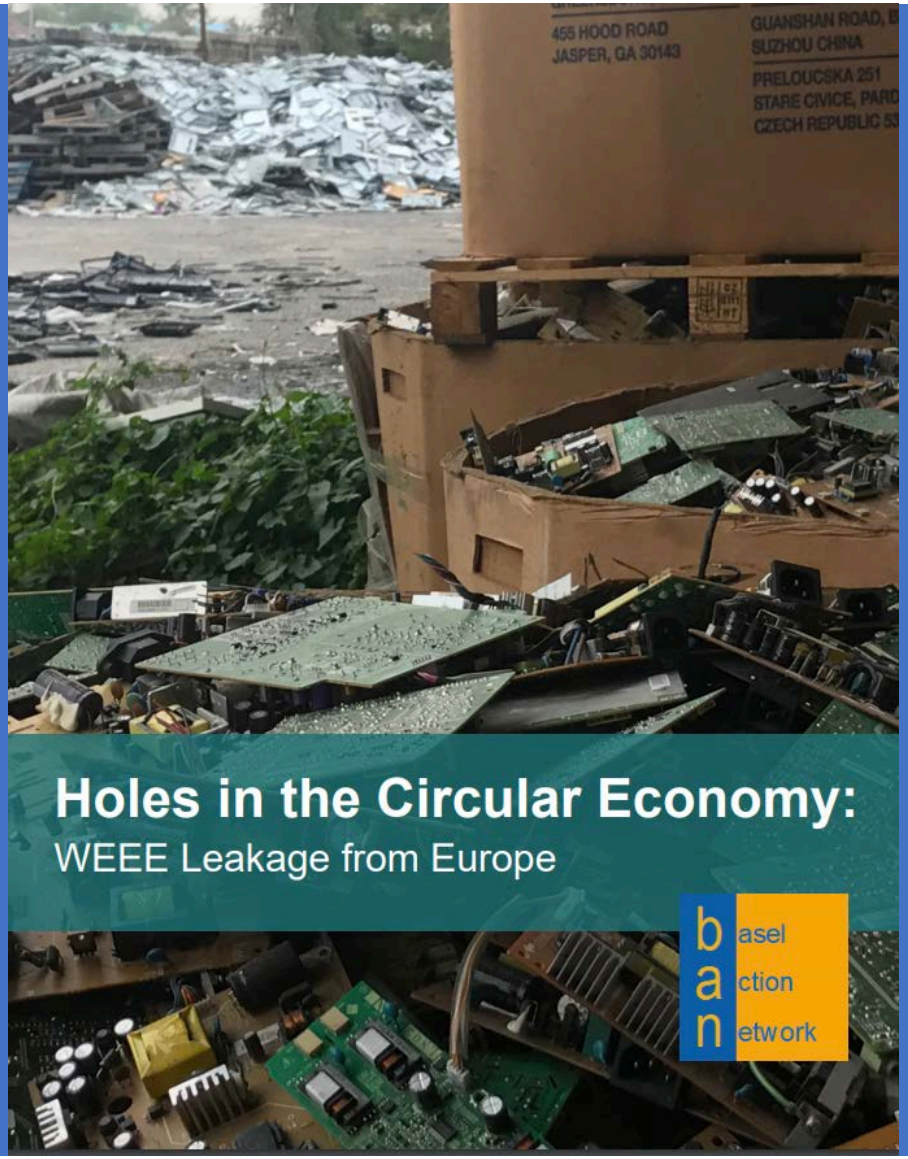


Methods

- We use larger devices (CRTs, LCDs, computers, printers)
- We render device non-functional / non-economically repairable
- We label the tracker with obvious sticker which says “if found contact track@ban.org”
- We date and film installations/deployments, including serial numbers
- We use a hack-proof customized and client firewalled server / user interface to collect and view data
- Our phone service functions anywhere in the world
- We **never** use lithium-ion batteries (fire prevention)


ReadyPost


earth


455 HOOD ROAD
JASPER, GA 30143
GUANSHAN ROAD,
SUZHOU CHINA
PRELOUCSKA 251
STARE CIVICE, PARD
CZECH REPUBLIC
Holes in the Circular Economy:
WEEE Leakage from Europe
basel
action
network

This report was made possible by the generous support from:

STENA RECYCLING

Aurubis
Metals for Progress

EERA
European Electronics Recyclers Association

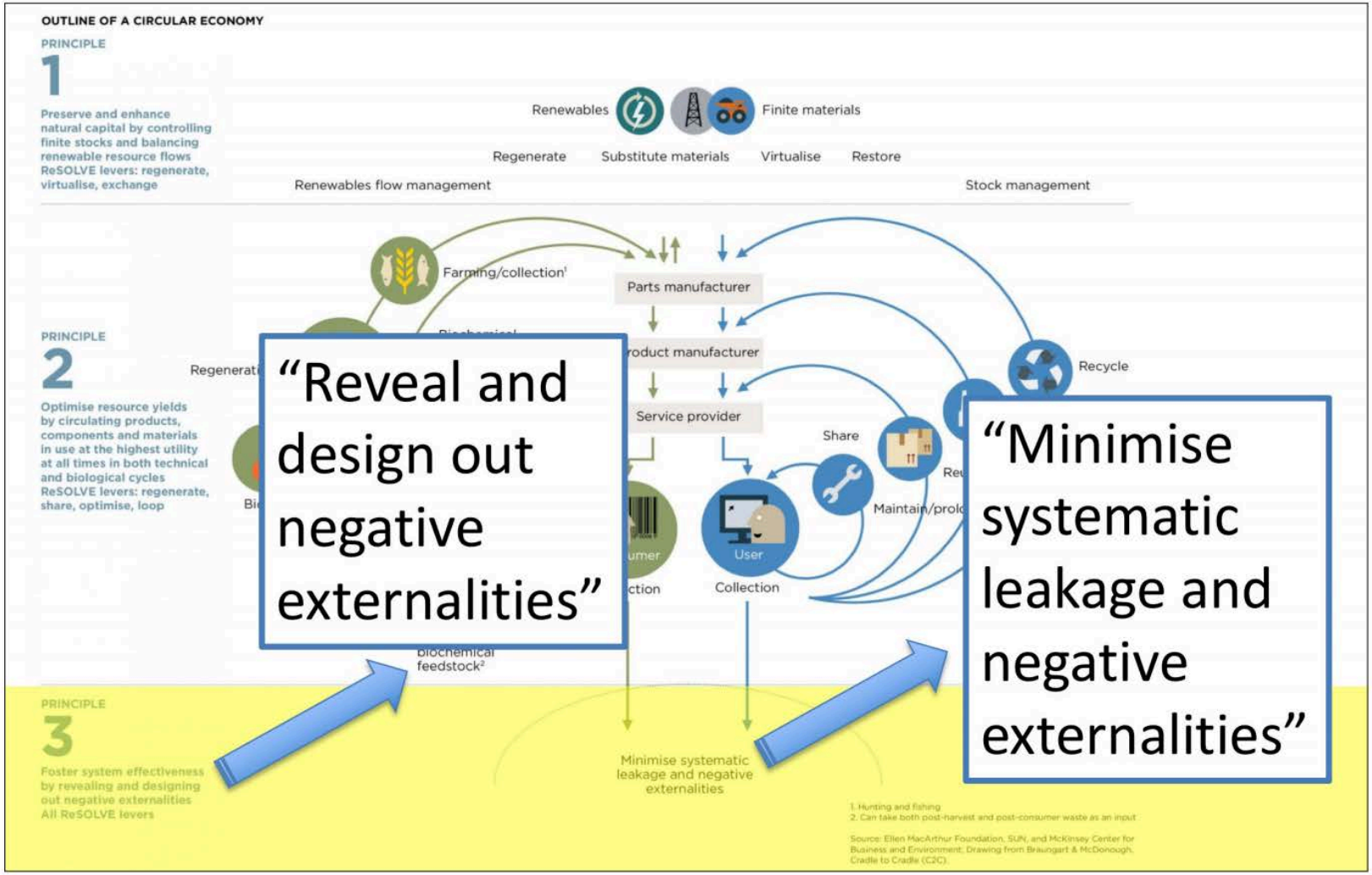
SIMS RECYCLING SOLUTIONS

MGG
MÜLLER-GUTTENBRUNN GROUP

Holes in the Circular Economy

WEEE Leakage from Europe

Outline of a Circular Economy



"Reveal and design out negative externalities"

"Minimise systematic leakage and negative externalities"

By the Numbers

- Biggest study of its kind
- Between 15 April 2017 and 2 September 2017
- BAN deployed a total of 314 used consumer electronic devices
- Across Europe in the 10 countries
- 143 LCD monitors, 55 CRT monitors, 65 desktop computers and 51 printers.

10 EU Countries / Trackers

Austria (18)
Belgium (29)
Denmark (20)
Germany (54)
Ireland (24)
Italy (48)
Hungary (17)
Poland (20)
Spain (45)
United Kingdom (39)

EU Exports / Red = non-OECD

Austria (1)
Belgium (1)
Denmark (3)
Germany (1)(1)
Ireland (1)(2)
Italy (2)
Hungary (0)
Poland (1)
Spain (1)
United Kingdom (5)


“EU Leakage”
Finland
Norway
Russia
United Kingdom
Denmark
Ireland
Belarus
Poland
Germany
Ukraine
Austria
Kazakhstan
Mongolia
France
Romania
Italy
Uzbekistan
Kyrgyzstan
Spain
Greece
Turkey
Turkmenistan
Portugal
China
Syria
Tunisia
Afghanistan
Iraq
Iran
Morocco
Pakistan
Nepal
Algeria
Libya
Egypt
Western Sahara
Saudi Arabia
India
Myanmar (Burma)
Oman
Mauritania
Mali
Niger
Sudan
Yemen
Thailand
South China Sea
Chad
Bay of Bengal
Burkina Faso
Gulf of Aden
Arabian Sea
Vietnam
Guinea
Nigeria
Ethiopia
Gulf of Thailand
Ghana
South Sudan
Laccadive Sea
Gulf of Guinea
Malaysia
Somalia
Kenya
Gabon
DRC
Indonesia
Tanzania

Deployments


striscia la tessera sanitaria
banda magnetica verso l'alto
ritira lo scontrino
RAEE POINT
HERA
Ecco cosa puoi introdurre
COMPUTER E PRODOTTI INFORMATICI
Mouse, tastiere e accessori; computer portatili e notebook; agende elettroniche; stampanti
TELEFONIA E ACCESSORI
Apparecchiature/accessori informatici per le comunicazioni; telefoni fissi e senza filo; segreterie telefoniche
APPARECCHIATURE PER IL TEMPO LIBERO
Apparecchi radio, videocamere, registratori, videoregistratori e lettori DVD; giocattoli elettrici/elettronici (es. treni e auto elettriche ecc.) e apparecchiature per il tempo libero e lo sport; piccoli strumenti musicali elettrici
TELEFONI CELLULARI
Ecco cosa puoi introdurre negli sportelli


Klunsning forbudt
32
TV-SKÆRME
PC-skærme, Tablets, Bærbare PC'ere
SKUBIND
TV
Klunsning forbudt
31
SMÅT ELEKTRONIK
Elektrisk udstyr


CITY COUNCIL


CYKLER FORBUDT


BEZPŁATNY ODBIÓR
ELEKTROŚMIECI
Zadzwon 2222 333
www.elektrosmie
NIE WRZUCAĆ ŚWIETLÓWEK


PUNKT ZBIERANIA
ELEKTROŚMIECI
PESTAR


FORUS
Tu wrzuć
ELEKTROODPADY
Większe ilości
elektroodpadów
odbieramy bezpłatnie
własnym transportem.
Szczegóły pod
nr. tel. 22 610 00 30
TELEWIZOR
MAŁE GABA

Ground Truthing


Thailand


Tanzania

Ghana

Key Findings: Holes in the Circular Economy

- Of the 314 tracked units deployed in in Austria, Belgium, Denmark, Germany, Hungary, Ireland, Italy, Poland, Spain and UK 19 (6%) were exported.
- The EU country exporting the most was UK (5, all to developing countries) followed by Denmark and Ireland with 3 each.
- More than half of the 19 exported (11 of 19, 61%) went to developing countries.

Key Findings: Holes in the Circular Economy

- The UK, Germany, Italy, Ireland, Poland, and Spain, all allowed e-waste exports to developing countries and each of these was likely to be illegal.
- These likely illegal shipments flowed to Nigeria, Ghana, Tanzania, Ukraine, Pakistan, Thailand and Hong Kong. These were 9 LCD screens, 1 CRT, and 1 desktop.
- Africa was most targeted region with 7 exports. (64% of the exports leaving the EU.

Key Findings: Holes in the Circular Economy

- Europe's 6% exportation rate was far less than the 40% rate found in the US, (with no laws forbidding exports).
- Due to the crude recycling methods and open burning, there is certain to be local contamination, and human exposure to highly toxic heavy metals as well as cancer causing dioxins and PAH's.

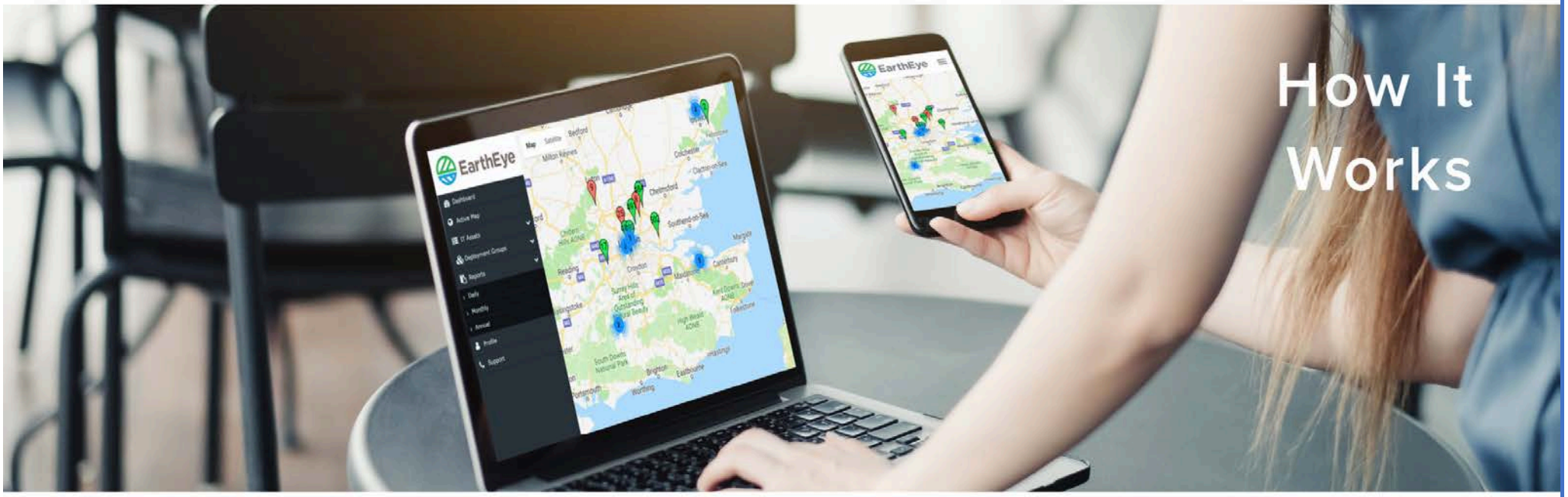
Key Findings: Holes in the Circular Economy

- Extrapolation of the export rates to developing countries from our study from all of the 28 member states of the EU, gives a total of 352,474 metric tonns exported per annum, which could fill 17,466 40-foot intermodal containers. If they were lined up on trucks, the trucks would stretch back to back for 401 kilometers.


www.ban.org/trash-transparency
e-Trash Transparency Project
READ MORE
VIEW MOVIE
Safeguarding people & the planet
from toxic waste trade

BAN’s Commercial / Governmental Service

EarthEye



About

THE VISION

WHY EARTHEYE?

WHAT IS EARTHEYE?

HOW IT WORKS

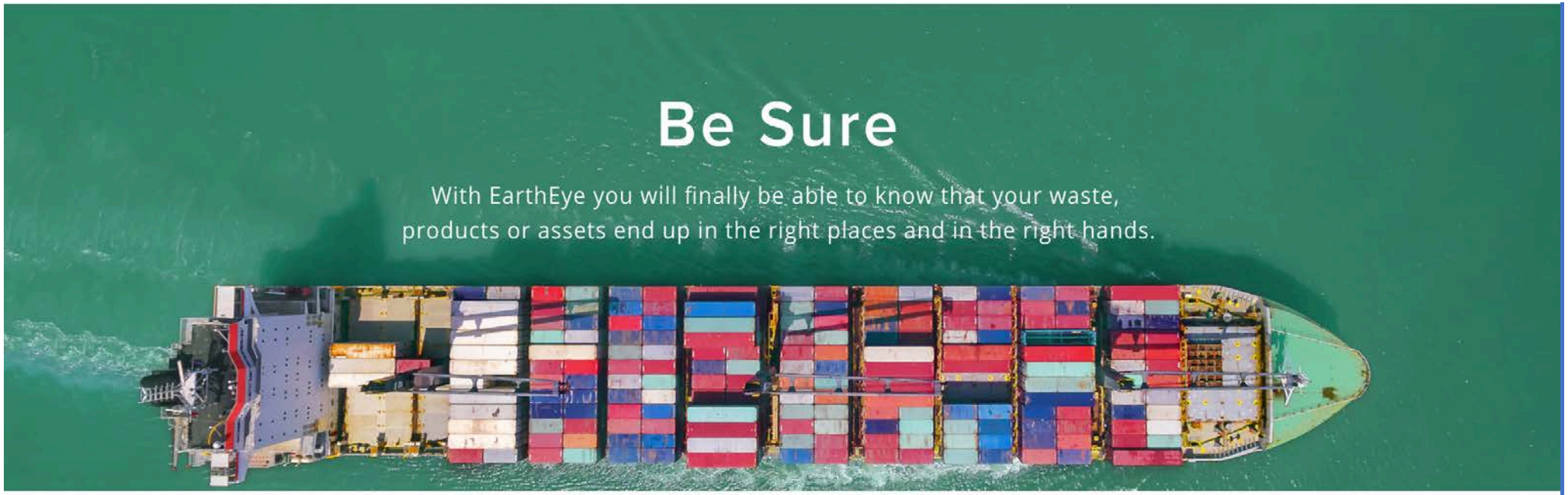
FAQ

FACT SHEET

A Comprehensive, Integrated System

- **EarthEye**™ subscribers choose the number of trackers to be deployed over a year and the installation and deployment option best suited to their business needs.
- **EarthEye's** trained technicians, working in secured locations, install, program and activate the tracking units.

www.eartheye.org



Data Security

Ensure all confidential data is being securely handled and destroyed

Environment

Know that your IT assets are being disposed of ethically without harm to our planet

Accountability

Ensure all of your recycling contracts are being fulfilled in the proper and legal manner as advertised

LEARN MORE

DELL EMC

MENU

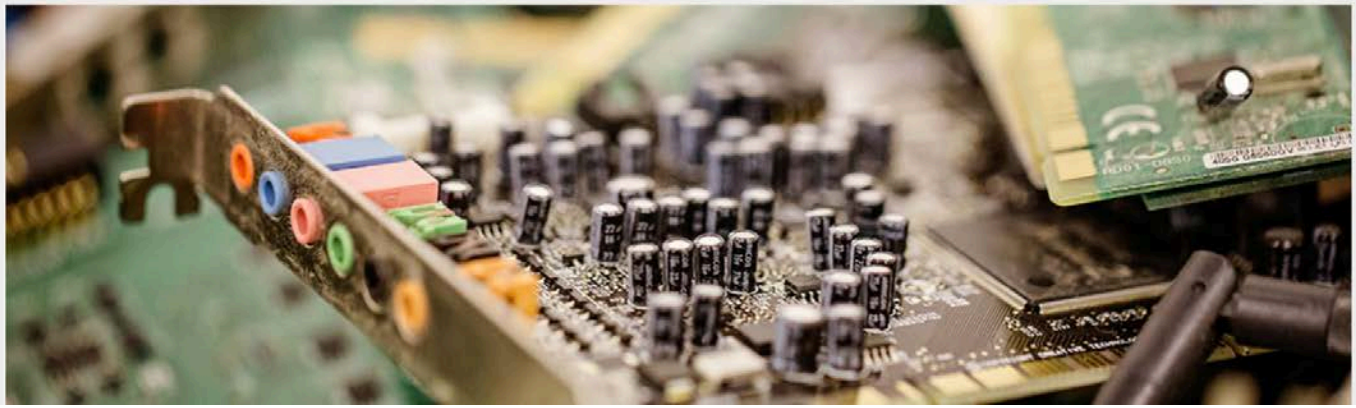
LATEST • NEWS FEATURES OPINIONS • + PRODUCTS + SOLUTIONS & SERVICES

Dell and Basel Action Network Team up to Track E-Waste

David Lear • June 18th, 2018

SHARE:

Having worked in tech for the last 25 years, I have geeked out on my fair share of new devices. But nothing gets me more excited than the opportunity to deploy tech in ways that can solve real challenges.



Samsung Partners with Basel Action Network to Enhance e-Waste Tracking

Samsung Newsroom (with U.S. Specific News Release) 10.16.18

SUSTAINABILITY

Since 2008, Samsung has been a strong supporter of recycling by providing convenient and responsible takeback options for consumer electronics globally. In a new initiative with our partner – Basel Action Network (BAN), we are adopting BAN's EarthEye™ service – a global GPS based tracking system for electronic waste.

EarthEye

Some of our customers to date:

- Dell Computers
- Samsung
- Taiwan Government
- Kuusakoski
- Electronics Recycling International (ERI)
- Cascade Asset Management

Thank You!

basel action network

Questions?

The Responsible Guideline:

www.ban.org/the-responsible-guideline