Meeting Report

- Final -

ISO International Workshop Agreement (IWA)

Session #3

Guidance Principles for the Sustainable Management of Secondary Metals

7 - 8 July 2016  IUCN, Gland, Switzerland
Background

The Sustainable Recycling Industries (SRI) Roundtable addresses sustainability criteria in secondary resources management in developing countries. The SRI Roundtable is an initiative of the Sustainable Recycling Industries (SRI) programme, which has built on the success of implementing e-waste recycling systems with various developing countries for more than ten years. This programme is funded by the Swiss State Secretariat of Economic Affairs (SECO) and is implemented by the Swiss Institute for Materials Science & Technology (Empa), the World Resources Forum (WRF) and ecoinvent.

The SRI Roundtable is convening an International Workshop Agreement (IWA) to consult with key and affected stakeholders in the development of Guidance Principles for the Sustainable Management of Secondary Metals. This activity is directed by the Swiss Association for Standardization (SNV) as ISO IWA 19 on behalf of the International Standards Organization (ISO) and supervised by the SRI Roundtable which is hosted by the World Resources Forum (WRF). The ISO IWA 19 process consists of a series of workshops as well as local and public consultations. The ISO IWA 19 Workshop Session #3 was held at the International Union for Conservation of Nature (IUCN) Conservation Centre in Gland, Switzerland on 7-8 July 2016. This report was drafted by the ISO IWA 19 Secretariat.

1 Available at: www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=69354
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Executive Summary

This seventeen-page report (without Annexes) includes highlights, main messages, areas of agreements, recommendations and next steps compiled during the ISO International Workshop Agreement (IWA) 19 Session #3 on ‘Guidance Principles for the Sustainable Management of Secondary Metals (Guidance Principles)’. The first 18 action points are for consideration in the next version of the Guidance Principles. Action points for the ISO IWA 19 Secretariat concerning the definition of the Theory of Change and next steps after the Guidance Principles publication are from 19 to 25.

Terms and definitions

1. Define the following terms: “shall (for requirements)” vs “should (for recommendations)”, “legal entity” instead of “registration”, “living wage” used to define “Subsistence Activities (SA)”, and “child labour” vs “working children”.

2. Revise the existing terms or definitions: SA and “Unofficial Business Activities (UBA)” which should be defined through their “legal entity” and not “registration” status; “Metallurgical processing” which should not miss key economic operators (EOs) such as shredders.

Principles and Objectives

3. Consider the use of “shall/shall not” for Principles “1. Working conditions”, “2. Community relations” and “3. Environmental protection” as these are more impact oriented than Principles “4. Product recovery” and “5. Management system”. In case of Principles 4 and 5 “should/should not” could be used.

4. Acknowledge the possibility of “working children” (Objective 1.3) under certain conditions: (a) within families and “not” under UBA based on children exploitation, (b) when practices are considered safe and “not” Worst Practices. Also supporting mechanisms need to be activated to enable the development of “working children”.

5. Revise Principle 3 and its Objectives by considering that Objective 3.3 on restoration is the most critical one in the context of the Guidance Principles.

Implementation

6. Better articulate guidance provided in Sub-Section 4.3 (see suggested steps to implement the Objectives) and the stepwise approach introduced in Section 5.2.

7. Revise how the sequential approach can be incorporated in the stepwise approach and revise the Sub-Section 5.2 accordingly.

8. Revise the supporting mechanisms by:
   - addressing the risks and obstacles identified for the EOs involved in SA, UBA and “Official Business Activities (OBA)”;

9. ...
elaborating on the type of support that governments, international organisations and producers can provide to OBA based on the results of the discussions.

Roles and responsibilities

9. Clarify responsibilities of manufacturers as potential major supporters.

10. Acknowledge the fact that SA will always exist and might be even allowed in certified value chains. Clarify what is doable by SA and UBA, what can be only implemented through external support (such as the access to safer technologies and practices provided by manufacturers to SA) and how to handle materials recovered by both.

11. Consider that OBA would be probably interested in engaging with SA but not with UBA as the latter is often in competition with OBA.

12. Consider that the mid-size layer (local SMEs) could be also enforcers of compliance with the Guidance Principles and not only the big and/or international companies.

Traceability (Chain of Custody)

13. Carefully define the Chain of Custody as traceability mechanism to avoid unlevel playing fields for value chain operators and to duly address business confidentiality issues. Other traceability mechanisms could be also considered. When defining a traceability mechanism, consider an approach that also looks into people concerned in the value chains.

Annex on ‘Worst Practices’

14. Based on comments received, consider amending the title of the Annex on 'Worst Practices'.

15. Recommend banning the amalgamation and open burning in all cases and limiting the chemical leaching to EOs involved in OBA with a licence to operate this process.

16. Revise the following titles to better distinguish standard well-accepted practices from Worst Practices: “dismantling and coarse shredding” and “chemical leaching”.

17. Refer to the Basel Convention and related bibliography when researching on cleaner and better practices.

18. Consider publishing this Annex with the Fact Sheets as a standalone document.

Theory of Change

19. Consider the following as main expected impacts of the Guidance Principles: improved recyclers' livelihoods especially of SA, and increased amount of recovered metals in compliance with the Guidance Principles.
20. Map key stakeholders to ensure that relevant ones are not missing (i.e. finance institutions) when developing the pathways for change and supporting mechanisms.

21. Map the dynamics and pathways among impacts and their linkages with the four principles to understand how the latter are connected and can impact on each other. Following on that, consider the development of a decision tree for EOs to decide which pathway to take.

Governance


23. Keep, if already existing, or establish new collaborative relationships with other standards initiatives related to metals for ensuring cross-fertilization and the dissemination of the Guidance Principles.

24. Precedents of ISO documents available at no cost should be looked into.

25. A Coordinating Organization would be needed to lead the next steps. Several options remain open, including a joint organization led by WRF and SNV.
Introduction

The following report summarises points raised by the participants during the two-day ISO International Workshop Agreement (IWA) 19 Session #3 which was attended by 30 participants (see Annex A). It was organised by the World Resources Forum (WRF), the Swiss Institute for Materials Science & Technology (Empa) and the Swiss Association for Standardization (SNV) at the International Union for Conservation of Nature (IUCN) Conservation Centre in Gland, Switzerland, on 7-8 July 2016. The Session #3 had the following objectives:

- To provide participants with an update of the comments received on the ‘Draft 1’ of the Guidance Principles during the first Public Review (1 February to 31 March 2016) and local consultations in Peru (February 2016), Kenya (February 2016) and India (June 2016).

- To collect feedback on the ‘Draft 2’ of the Guidance Principles for the revision of the next draft version focusing on the following open issues: use of shall vs should along the Principles and Objectives; phasing out child labour or not; priority aspects of Principle 3 on environmental protection; stepwise approach and proposed timeline; role of OBA; worst practices identified; pathways for effective change and real impact; Chain of Custody as traceability mechanism; Governance related aspects after the launch of the Guidance Principles.

- To identify new issues of relevance for consideration in future.

- To inform about next steps.

‘Draft 2’ of the Guidance Principles will be revised on the basis of the outcomes of the ISO IWA 19 Session #3 as well as written comments provided by the general public from the 1st to the 31st of July 2016 through the Public Review.

As already agreed during the ISO IWA 19 Session #1, this meeting report will not attribute names to the comments raised during the Session #3, except for speakers and members of the ISO IWA 19 Secretariat.

1. Welcome

Gerard Bos (Director of IUCN Global Business and Biodiversity Programme), Philipp Ischer (Programme Manager of the Swiss State Secretariat for Economic Affairs – SECO) and Xaver Edelmann (President of the World Resources Forum – WRF), welcomed the participants to the ISO IWA 19 Session #3 and thanked them for their continued support.

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Mathias Schluep, Chair of the ISO IWA 19 process, welcomed the participants and thanked the Advisory Committee (AC) of the SRI Roundtable; the ISO IWA 19 Secretariat; Sonia Valdivia, Vice-Chair of the ISO IWA 19 process; and Sébastien Haye (E4tech) and Christine Carey (CAREY Research & Consulting) for their support.

2. Participants, Objectives and Expectations

Participants represented micro, small and medium size enterprises, large companies, NGOs, standards’ organisations, UN Agencies as well as universities and research organisations. There were no representatives from trade associations, unions and the media (see Annex A).

Main expectations from Session #3 raised by the participants included their desire to improve their understanding about (i) the ISO IWA 19 process, (ii) the current status of the Guidance Principles, (iii) specific secondary metals related concepts, (iv) the views of participants with different backgrounds and expertise, and (v) future steps, including the field testing of the Guidance Principles foreseen in 2017. See agenda in Annex B.

Concerning their level of satisfaction participants expressed being mostly satisfied with the process to develop the Guidance Principles and moderately satisfied with the content (introduction, scope, definitions, supporting mechanisms and assurance). See Annex C with detailed results.

3. Where are we in the Guidance Principles Process?

Sonia Valdivia presented the current status of the process of the Guidance Principles by sharing the project timeline, the structure of ‘Draft 2’ as well as the main comments received during the Public Review of ‘Draft 1’ and the three local consultations undertaken in Peru, Kenya and India. Finally, Valdivia noted that the Public Review of the ‘Draft 2’ was open to the general public from the 1st to the 31st of July 2016.

4. Pending Issues of the Guidance Principles

Five open content-related issues of the Guidance Principles were discussed in groups and findings presented to all participants for feedback:

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4 AC members: Giulia Carbone (IUCN), Urs Fischer (SNV), Christian Hagelüken (UMICORE), Jaco Huisman (UNU), Maria Amelia Rodrigues (ECOECO), Simone Rufener (BAFU), Fiona Solomon (ASI), Chiara Venturini (GeSI).
5 Mathias Schluep (WRF), Sonia Valdivia (WRF), Maria Sureda (WRF), Ruwedy Stillhart (WRF), Rolf Widmer (Empa) and Rolf Widmer (SNV).
7 Available at: www.sustainable-recycling.org/sri-roundtable-overview/guidance-principles-2/public-review-gp-2/
a. **Shall vs should**: which objectives are non-negotiable? That is, which objectives to be written “shall” instead of “should”? Rationale to be provided.

b. **Phasing out child labour**, how to support parents and employers? Should government approach be punitive or encouraging?

c. **Principle 3**, should it be narrower? Which biodiversity issues are a priority for secondary metals?

d. **Stepwise Approach for OBA, UBA and SA**, is the timeline realistic? How can it be improved?

e. **Role of OBA** in support of UBA and SA, which specific support would OBA need and from whom?

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**Main comments raised during the discussions:**

a. **Shall vs should**

Consider the use of “shall/shall not” for Principles “1. Working conditions”, “2. Community relations” and “3. Environmental protection” as these are more impact oriented than Principles “4. Product recovery” and “5. Management system”. In case of Principles 4 and 5 “should/should not” could be used. Participants did not exhaust the discussions on which aspects should be phased out or not and the Secretariat was asked to propose the use of “shall/shall not” or “should/should not” following an assessment case by case.

The impact pathways per Objective (see later more details in the discussions on the Theory of Change) have to be clarified in order to avoid the perceptional risk that some Objectives and Principles are being prioritized over others when attributing “should” or “shall” in the notes provided per Objective.

Reword the next version of the Guidance Principles according to ISO rules, i.e. “should” for recommendations and “shall” for requirements.

b. **Phasing out “child labour”**

It was agreed a no-go for “child labour” and the need to differentiate between “working children” and “child labour” as well as among different types of the latter. While “child labour” is to be eliminated according to the ILO Convention No. 182, “working children” has a different connotation and can be even considered as positive as long as this does not affect children’s health and personal development nor interfere with their schooling.

Acknowledge the possibility of “working children” (Objective 1.3) for certain cases: (a) within families and “not” for UBA based on children exploitation, (b) when considered safe practices and “not” Worst Practices.

Also there needs to be activated incentives rather than punitive measures to support the development of children such as financial support and improved access to education.

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c. **Principle 3 on environmental protection**

Participants concurred on the need to revise Principle 3 and its objectives by keeping in mind that restoration (Objective 3.3) is the most critical environmental aspect in the context of secondary metals recovery.

**d. Stepwise approach and timeline**

Overall the timeline proposed does not seem to provide one-size-fits-all options especially in developing countries where full compliance might take longer especially for SA and perhaps also for UBA.

Following that line of thinking, the sequential approach might be more useful than the timeline perspective. Revise how the sequential approach can be incorporated in the stepwise approach and revise the Sub-Section 5.2 accordingly.

It was noted that guidance provided in Sub-Section 4.3 (suggested steps to implement the Objectives) and the stepwise approach introduced in Section 5.2 need to be better articulated.

**e. Role of OBA**

OBA should be the ones triggering the implementation of the Guidance Principles.

OBA would be probably interested in engaging with SA but not with UBA as the latter is often in competition with OBA. OBA could support SA by enabling appropriate working conditions and offering awareness raising activities and training. Voluntary support could be also an option for SA (i.e. provided by individual senior experts and UN volunteers).

On the question, who can support OBA, three groups were highlighted: governments (by enforcing national/local regulations on Extended Producer Responsibility (EPR), organizing awareness raising activities and introducing economic incentives), international organisations (by providing financial support, the space for collaboration and visibility) and producers (by implementing ERP policies in their value chains).

The Guidance Principles should clarify what is doable by SA and UBA, what can be only implemented through external support and how to handle materials recovered by both.

**f. Terms and definitions**

Several terms and definitions were discussed and the following recommendations provided.

- Define “shall (for requirements)” vs “should (for recommendations)”, and “living wage” in the context of SA.

- Revise the existing definitions:
  i) Subsistence Activities (SA) which should clarify the threshold used: living wage.
  ii) “child labour” vs “working children”.
  iii) “Metallurgical processing” which should not miss key economic operators such as shredders. Physical processing could be part of the metallurgical one as this also triggers metallurgical changes.

Detailed feedback received from each group can be found in Annex D.
5. Local Consultation in Bangalore, India

A local consultation with formal recyclers and associations on the ‘Draft 1’ of the Guidance Principles⁹ was held in Bangalore (June 2016). Main findings were summarized by Deepali Sinha (SOFIES¹⁰):

- Similar to Colombian recyclers consulted in February 2016, Indian OBA indicated their reticence to cooperate with UBA due to potential competition.
- Green card as a tool implemented by the informal sector in order to allow SA and UBA workers to have access to End of Life Vehicles (ELV) materials. Despite being issued by an informal association of ELV dismantlers (i.e. not by the Government), this system has proven to be effective.
- Trading and aggregation are significant economic activities in secondary metal value chains.
- A common dangerous practice includes “oil burning in furnaces”.
- Access to materials was the key driver for formalisation.
- UBA are reluctant to get formalised.

Potential roles of OBA, supporting mechanisms suggested as well as indications on Worst Practices identified, will be considered when preparing the next version of the Guidance Principles. Drivers mentioned for the formalisation will be taken into account in the field testing considered for 2017 once the Guidance Principles have been published.

6. Understanding the Secondary Metal Supply Chain

This session aimed to discuss for each stakeholder group about the specific implementation steps, risks, benefits and obstacles, and use these findings to further improve the Guidance Principles and facilitate their implementation. See Table below with main findings and in Annex E more detailed statements and input from the discussions.

<table>
<thead>
<tr>
<th>Stakeholder group</th>
<th>Main Risks</th>
<th>Main Benefits</th>
<th>Main Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. EOs involved in SA willing to form a cooperative/association.</td>
<td>Losing a share of subsistence and flexibility. Increased competition. More exposure and more pressure from authorities.</td>
<td>Improved access to materials, markets and training. More networking options. Improved status. Increased negotiation power.</td>
<td>Limited time and resources to be engaged in a process.</td>
</tr>
<tr>
<td>b. EOs involved in UBA trying to get a legal status</td>
<td>Bankruptcy due to higher costs.</td>
<td>Acknowledgement by local authorities.</td>
<td>High formalization costs including the</td>
</tr>
</tbody>
</table>

¹⁰ SOFIES: www.sofiesgroup.com
<table>
<thead>
<tr>
<th></th>
<th>Forced relocation. Increased competition. More exposure and more pressure from authorities. More exposure to corruption.</th>
<th>More stable business. Improved access to materials, (global) markets, financial and technological support.</th>
<th>hiring costs of someone running the process. Difficulties to comply with regulations due to the lack of resources. Unclear benefits and incentives.</th>
</tr>
</thead>
<tbody>
<tr>
<td>c. EOs involved in OBA willing to support SA and UBA economic operators in the value chain</td>
<td>More exposure to corruption. Being accused of greenwashing. Strengthening the competitors.</td>
<td>Reduced environmental damage along the value chain. Stronger partnerships.</td>
<td>High costs and limited human resources. Unclear benefits such as Return of Investment (ROI).</td>
</tr>
<tr>
<td>d. International product manufacturers committing to use compliant secondary metals and trace them up the supply chain</td>
<td>Disclosure of confidential information and increased exposure to corruption. Reduced economic benefits in the short term.</td>
<td>Improved reputation and image. Increased circularity (via secured access to resources and more control over the prices).</td>
<td>Difficulties to track metals after the second tier supplier. The government does not cooperate. There is not a level playing field in the country.</td>
</tr>
<tr>
<td>e. Government Body or NGOs willing to promote the Guidance Principles and put supporting mechanisms in place</td>
<td>Being accused to promote greenwashing due to single incidents (one child found working on recycling). Guidance Principles might not be aligned with the national regulations.</td>
<td>Social inclusion of the workers. Governments with increased revenues through taxes paid. The Guidance Principles could be promoted as an entrepreneur tool.</td>
<td>Monitoring might be difficult. Lack of personnel to handle additional administrative work. Difficulties in issuing regulations with financial incentives to promote sustainable recycling and in implementing enforcing mechanisms.</td>
</tr>
</tbody>
</table>

As a results from the discussions following action points have been identified.

"Subsistence Activities (SA)" will always exist

a. Acknowledge the fact that in metal value chains SA will always exist. Some SA might wish to remain informal. SA – but not UBA - might be even allowed in certified value chains. Elaborate further on suggested tools and supporting mechanisms to improve their practices.

Main risks, benefits and obstacles

b. When revising the supporting mechanisms consider the following risks and obstacles raised:
- Main risks for EOs include the increased exposure, pressure from authorities and competition.
- Relevant obstacle raised for product manufacturers is the difficulty to trace metals after the second tier supplier.
- The lack of resources and the apparent difficulties to comply with the Guidance Principles and regulations where seen as major obstacles for EO.

c. Revise the benefits part in the Guidance Principles by considering the following ideas:
- Improved status and access to materials, markets, financial and technological support for SA and UBA.
- Reduced environmental damage along the value chain and stronger partnerships for OBA.

**Terms and definitions**

d. Participants noted that the definition of SA and UBA make reference to their “registered” / “non-registered” status and argued that being “registered” is not necessarily equivalent to “being formal”. Participants concurred that the terms “registered” / “non-registered” are misleading and should be replaced by “with a legal entity” or “with non-legal entity”. Definitions of the latter are to be added to “terms and definitions” section.

### 7. Worst Practices in Secondary Metal Value Chain


Group discussions were organized and facilitated by relevant experts on five selected Worst Practices in metal recovery:

- Dismantling and coarse shredding
- Uncontrolled burning & cooking
- Amalgamation
- Chemical leaching
- Uncontrolled open dumping.

The following three questions addressed for each Worst Practice framed the discussions:

- How can this Worst Practice be phased out in the near future?
- What are the gaps in terms of documentation and guidance?
- Is it more relevant to certain sectors or regions?

\(^{11}\) SAEWA: sa.ewastealliance.co.za

The fruitful discussions lead to valuable ideas to be incorporated when revising the Fact Sheets for each Worst Practice. Details on how to improve each practice can be found in Annex F.

**Summary of key points:**

**a.** Draw a clear line on which Worst Practices should be completely banned and which ones could be improved and stay there.

**b.** Revise the titles of the following Worst Practices: “dismantling and coarse shredding” and “chemical leaching”. The current titles refer to internationally well-accepted definitions of processes which is confusing.

**c.** Consider following recommendations to phase out identified Worst Practices:
   - Provide training and awareness raising on the risks and economic value of potential materials to be recovered.
   - In case of “uncontrolled dismantling and open dumping” there is room for improvement e.g. by providing appropriate training on cleaner and safer practices and proper equipment.
   - As for “uncontrolled open dumping”, incentives and alternative schemes should be put in place to reduce the incidences.
   - Ban the amalgamation and uncontrolled open burning of waste that contains metals for all EOs and require that these wastes are sent to proper facilities using alternative processes.
   - Ban the uncontrolled chemical leaching for EOs involved in SA and UBA for which a licence to operate these processes should be required.

**d.** When reviewing Annex A, consider that definition and guidance on phasing out Worst Practices appear to be more critical in the developing and emerging economies where there is insufficient enforcement of regulations and customization of the Basel Convention.

**e.** Consider the Basel Convention and related bibliography when researching on cleaner and better practices as this was cited among the most appropriate sources for this case.

**f.** Revise the content of Annex A following comments received and, if appropriate, amend the title of the Annex on 'Worst Practices'.

**g.** Consider publishing this Annex with the Fact Sheets as a standalone document.

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**8. Plenary discussion – Theory of Change**

The Theory of Change (ToC) is essentially a comprehensive description and illustration of how and why desired changes are expected to happen in a particular context. Sonia Valdivia presented the aims of the ToC in the context of the Guidance Principles and explained that its development is work in progress. She provided a pathway example for triggering positive changes in workers’ environment and conditions. In order to get streamlined feedback to be considered in the ToC development, she asked the participants to provide feedback.

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their input by addressing the three questions below. Highlights of the discussion are presented in the following lines.

a. Which impacts should the Guidance Principles prioritise in the short, medium and long term?

Impacts on workers and metals recycled were raised as priority ones by several participants. In line with that it was suggested that main aims of the Guidance Principles should be (a) to improve the livelihood of recyclers (especially of those involved in SA delivering 40% of metals and not yet clearly addressed in the document), and (b) to promote metals recycling (hence, more metals recycled).

b. What are the activities and roles to achieve such impacts?

The roles’ aspects generated more discussion and feedback than the activities related ones.

Overall, there seemed to be agreement on the need to clarify roles and responsibilities especially of manufacturers – high technology holders – as key players and potential providers of support to economic operators concerned.

In order to reach meaningful impacts and the desired change, it was stressed on the importance to engage manufacturers specially in support of SA e.g. by facilitating them access to safer technologies and practices when working with hazardous materials.

While it was acknowledged that Governments’ support was relevant, it was recognized that support from corporate manufactures could and should come faster.

Participants asked not only to take into account big and/or international companies as potential enforcers of compliance of the Guidance Principles, but also local SMEs due to their potential capacity and knowledge of the local context.

To avoid missing relevant stakeholders (i.e. finance institutions), it was recommended to complete a mapping also to serve as input when developing the pathways for chance (see the part on Theory of Change).

c. Which indicators can be used to measure impact?

The importance of the baseline results (Objective 5.1) for each EO was highlighted which will help understanding the magnitude of the impacts, possible pathways and best indicators for monitoring progress. Map the dynamics among impacts and pathways for change and linkages with the four principles to better understand how the principles are connected and how they can impact each other. Based on that it was suggested to develop a decision tree for economic operators to decide which pathway to take. Indicators suggested by the participants to measure impacts included:

- No. of manufactures that supported SA and other EOs
- No. of contracts issued
- Increase of prices

Several remarks were raised on the potential economic benefits of recovering metals in compliance with the Guidance Principles:
- A group of metal recyclers involved in OBA considered that sustainable recycling pays off also because consumers of emerging markets for premium materials might be able to pay more. Similar to the Fairphone or Green Energy (Germany), a Fairmetal could be branded and traded with success.

- Some participants cautioned not to base our thinking model on the assumption that sustainably recovered metals will have a better price. "Non-conflict diamonds" seem to be well accepted, but it is uncertain how the market of sustainably recovered metals will react as processes are done in different places, making difficult the tracking of metals. A challenge to be dealt with was also mentioned concerning the broad misconception of considering raw metals as "good" and secondary metals as "dirty" resources.

Linked to the monitoring of indicators to measure progress and evolution of impacts, traceability aspects were discussed. While one group argued that a traceability system is needed and should be inclusive and should not promote advantage to certain groups or regions, others questioned whether the Guidance Principles should recommend traceability mechanisms considering that this document is not meant to be a standard nor to establish a certification process. Some added that there are confidentiality issues that might become an obstacle for implementing traceability mechanism.

It was acknowledged that the tracking of secondary metals might be challenging from a logistic and financial perspective and more complicated to do than the tracking of raw materials (i.e. primary metals). Nevertheless, the traceability approach has to consider a way to trace secondary metals and at the same time allow the possibility to look into people concerned in the value chains.

On the previous points Mathias Schluep emphasized that the Guidance Principles will not be a standard for certification. He added that they are meant to provide a framework with Objectives and Principles complemented with the traceability part. It is intended to also look into people along the value chain and that the tracking of metals becomes the mean to do that. The Chain of Custody as traceability mechanism should be carefully defined to avoid unlevel playing fields for certain value chain operators and dully address business confidentiality issues. Other traceability mechanisms could be also considered.

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**Summary of key points:**

- Highlight that main impacts of the Guidance Principles should be the improved recyclers’ livelihoods especially of those involved in SA and the increased amount of recovered metals.

- Clarify responsibilities of manufacturers as potential major supporters.

- Interactions/collaboration between high technology holders and workers from Subsistence Activities is a pre-condition for high impact through which SA can get e.g. access to safer technologies and practices when working with hazardous materials.

- Map key stakeholder to ensure that key actors are not missing (i.e. finance institutions) when developing the pathways for chance.
e. Consider that the mid-size layer (local SMEs) could be also enforcers of compliance with the Guidance Principles and not only the big and/or international companies.

f. Map the dynamics among impacts and pathways for change and linkages with the four principles. Following on that consider the development of a decision tree for economic operators to decide which pathway to take.

g. Chain of Custody as traceability mechanism should be carefully defined to avoid unlevel playing fields for value chain operators and dully address business confidentiality issues. Other traceability mechanisms could be also considered. When defining a traceability mechanism, consider an approach that also looks into people concerned in the value chains.

9. Governance and Next steps

During Sonia Valdivia’s presentation, following points were highlighted:

- **Revision period of the Guidance Principles:**
  - Three years after the publication, the Guidance Principles will need to be revised by the ISO IWA 19 members.
  - Six years after the publication, a decision will be made by ISO in consultation with ISO IWA members to either initiate a process to convert the Guidance Principles into an ISO International Standard or to withdraw them.

- Field testing of the Guidance Principles will be carried out beginning in 2017.

- Cooperation with other standardization initiatives to support the internalization of the recommendations of the Guidance Principles in their deliverables will continue throughout 2017.

- Intentions to continue working with ISO/SNV partners.

Participants expressed interest in the 2017 activities especially in the field testing and wanted to know its scope and additional details. It was suggested to develop Terms of Reference to be shared with ISO IWA members. Rolf Widmer from SNV\(^{14}\) clarified the different ways in which ISO and SNV can continue to support the ISO IWA 19 process\(^{15}\) as follows:

- Dissemination of the Guidance Principles through regular communications to ISO members in more than 160 countries and publication in the ISO magazine “Focus” which will provide an ample coverage.

- Support the review process after 3 years.

\(^{14}\) SNV: [www.snv.ch](http://www.snv.ch)

• If positively decided by ISO IWA members, SNV will support the process towards the conversion of the Guidance Principles into an ISO International Standard. In this case ISO National Standardization Bodies (NSB) from all countries will be again invited to join; ISO IWA members not representing NSB can join as experts. The new process will not start from scratch, but based on the current version of the Guidance Principles and any input to be received.

In view of the need for continued support to ensure the dissemination and promotion of the Guidance Principles and the next steps from 2017 onwards, organizational options need to be setup such as the Coordinating Organisation possibly initially consisting of a joint effort of WRF and SNV.

Concerning the free accessibility of the document, the ISO IWA 19 Secretariat is currently working on options jointly with SNV. Precedents of ISO documents available at no cost should be considered as examples.

Summary key points:

a. Establish collaborative relationships with other standards initiatives related to metals for ensuring cross-fertilization and dissemination of the Guidance Principles.

b. Develop Terms of Reference for the field testing of the Guidance Principles in SRI participating countries in 2017 and share them with ISO IWA members.

c. A Coordinating Organisation would be needed to lead the next steps. Several options remain open, including a joint coordination led by WRF and SNV.

d. Precedents of ISO documents available at no cost should be assessed.

10. Closure

Mathias Schluep on behalf of the Chair and Vice-Chair closed the Session #3 by thanking the participants for their valuable feedback, the ISO IWA 19 Secretariat and facilitators for the success of the ISO IWA Session #3.

He encouraged all to be pragmatic visionaries and added that the document produced by the end of the year might not be perfect, but should be a strong starting point in a process to help bringing about the change needed.
# Annex A. List of Participants

<table>
<thead>
<tr>
<th>NAME</th>
<th>ORGANISATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atiemo, Sampson</td>
<td>Independent consultant / Sustainable Recycling Industries (SRI) Programme</td>
</tr>
<tr>
<td>Bartley, Ross</td>
<td>Bureau of International Recycling – BIR</td>
</tr>
<tr>
<td>Bel, Garam</td>
<td>UNEP Secretariat of the Basel, Rotterdam and Stockholm Conventions</td>
</tr>
<tr>
<td>Bondolfi, Anahide</td>
<td>Sofies</td>
</tr>
<tr>
<td>Carbone, Giulia</td>
<td>International Union for Conservation of Nature – IUC</td>
</tr>
<tr>
<td>Carey, Christine</td>
<td>CAREY Research &amp; Consulting – CRC</td>
</tr>
<tr>
<td>Edelmann, Xaver</td>
<td>World Resources Forum – WRF</td>
</tr>
<tr>
<td>Haarman, Arthur</td>
<td>Swiss Federal Laboratories for Materials Science and Technology - Empa</td>
</tr>
<tr>
<td>Harris, Eric</td>
<td>The Institute of Scrap Recycling Industries – ISRI</td>
</tr>
<tr>
<td>Haye, Sébastien</td>
<td>E4tech</td>
</tr>
<tr>
<td>Herbeck, Elisabeth</td>
<td>Die Wiener Volkshochschulen, Dismantling and Recycling Centre</td>
</tr>
<tr>
<td>Hernández, Carlos</td>
<td>Centro Nacional de Producción más Limpia – CNPML</td>
</tr>
<tr>
<td>Ischer, Philipp</td>
<td>State Secretariat for Economic Affairs – SECO</td>
</tr>
<tr>
<td>Iskandar, Laila</td>
<td>CID Consulting</td>
</tr>
<tr>
<td>Karcher, Susanne</td>
<td>Southern African e-Waste Alliance – SAEWA</td>
</tr>
<tr>
<td>Kern, Matthias</td>
<td>UNEP Secretariat of the Basel, Rotterdam and Stockholm Conventions</td>
</tr>
<tr>
<td>Manoochehri, Shahrzad</td>
<td>World Resources Forum – WRF</td>
</tr>
<tr>
<td>Moghny, Ghada</td>
<td>Centre for Environment and Development for the Arab Region and Europe – CEDARE</td>
</tr>
<tr>
<td>Nallathambi, Muthusezhiyan</td>
<td>Confederation of Indian Industry – CII</td>
</tr>
<tr>
<td>Rochat, David</td>
<td>Sofies</td>
</tr>
<tr>
<td>Schleicher, Tobias</td>
<td>Öko - Institut</td>
</tr>
<tr>
<td>Schluep, Mathias</td>
<td>World Resources Forum – WRF</td>
</tr>
<tr>
<td>Sinha, Deepali</td>
<td>Sofies</td>
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<tr>
<td>Stillhart, Ruweyda</td>
<td>World Resources Forum – WRF</td>
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<tr>
<td>Sureda, Maria</td>
<td>World Resources Forum – WRF</td>
</tr>
<tr>
<td>Tonda, Elisa</td>
<td>United Nations Environment Programme – UNEP</td>
</tr>
<tr>
<td>Valdivia, Sonia</td>
<td>World Resources Forum – WRF</td>
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<tr>
<td>Voett, Ulrike</td>
<td>Sofies</td>
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<tr>
<td>Widmer, Rolf</td>
<td>Swiss Association for Standardization – SNV</td>
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<tr>
<td>Widmer, Rolf</td>
<td>Swiss Federal Laboratories for Materials Science and Technology – Empa</td>
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</table>
Annex B. Agenda

Thursday 7 July 2016

<table>
<thead>
<tr>
<th>TIME</th>
<th>ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:30 – 09:00</td>
<td>Registration Coffee &amp; tea</td>
</tr>
<tr>
<td>09:00 – 09:05</td>
<td>Welcome to IUCN by Gerard Bos</td>
</tr>
<tr>
<td></td>
<td>Director Global Business and Biodiversity Programme, IUCN</td>
</tr>
<tr>
<td>09:05 – 09:10</td>
<td>Welcome by Philipp Ischer</td>
</tr>
<tr>
<td></td>
<td>Programme Manager, Swiss State Secretariat for Economic Affairs (SECO)</td>
</tr>
<tr>
<td>09:10 – 09:15</td>
<td>Welcome to ISO IWA Session 3 by Mathias Schluep</td>
</tr>
<tr>
<td></td>
<td>Chair of the ISO IWA 19 and Programme Director WRF</td>
</tr>
<tr>
<td>09:15 – 09:50</td>
<td>Setting the Scene - Sébastien Haye</td>
</tr>
<tr>
<td></td>
<td>Agenda, Mapping &amp; Participant Introductions - Christine Carey</td>
</tr>
<tr>
<td>09:50 – 10:30</td>
<td>Where are we in the Guidance Principles process?</td>
</tr>
<tr>
<td></td>
<td>Sonia Valdivia, Vice-Chair ISO IWA 19 and Programme Manager WRF</td>
</tr>
<tr>
<td>10:30 – 11:00</td>
<td>Coffee &amp; tea</td>
</tr>
<tr>
<td>11:00 – 12:30</td>
<td>Pending Issues of the Guidance Principles – Carousel Christine Carey</td>
</tr>
<tr>
<td>12:30 – 14:00</td>
<td>Lunch - IUCN Eldora Restaurant</td>
</tr>
<tr>
<td>14:00 – 14:05</td>
<td>Short video</td>
</tr>
<tr>
<td>14:05 – 15:40</td>
<td>Understanding the Secondary Metal Supply Chain: Storytelling - Sébastien Haye</td>
</tr>
<tr>
<td>15:40 – 16:10</td>
<td>Coffee &amp; tea</td>
</tr>
<tr>
<td>16:10 – 17:45</td>
<td>Worst Practices in Secondary Metal Supply Chains - World Café Discussion Sébastien Haye</td>
</tr>
<tr>
<td>17:45 – 18:00</td>
<td>Wrap-up Mathias Schluep and Sonia Valdivia</td>
</tr>
<tr>
<td>18:00 – 19:30</td>
<td>Cocktail Reception IUCN White Bar + Group Picture</td>
</tr>
</tbody>
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Friday 8 July 2016

<table>
<thead>
<tr>
<th>TIME</th>
<th>ITEM</th>
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<tbody>
<tr>
<td>08:30 – 09:00</td>
<td>Coffee &amp; tea</td>
</tr>
<tr>
<td>09:00 – 09:10</td>
<td>Welcome Back, Mathias Schluep &amp; Sonia Valdivia</td>
</tr>
<tr>
<td>09:10 – 09:25</td>
<td>Quiz Christine Carey</td>
</tr>
<tr>
<td>09:25 – 10:30</td>
<td>Plenary Discussion: Theory of Change – Sonia Valdivia</td>
</tr>
<tr>
<td>10:30 – 10:50</td>
<td>Coffee &amp; tea</td>
</tr>
<tr>
<td>10:50 – 11:50</td>
<td>Governance and Next Steps - Sonia Valdivia and Rolf Widmer (SNV)</td>
</tr>
<tr>
<td>11:50 – 12:30</td>
<td>Wrap-up and Closing - Mathias Schluep and Sonia Valdivia</td>
</tr>
<tr>
<td>12:30 – 14:00</td>
<td>Lunch – Barbecue</td>
</tr>
</tbody>
</table>
Annex C. Participants’ Level of Satisfaction
### Annex D. Discussions on “Pending Issues of the Guidance Principles”

<table>
<thead>
<tr>
<th>QUESTIONS</th>
<th>FEEDBACK FROM GROUPS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Q1: Shall vs. should</strong></td>
<td>“Shall” to be used for impacts (Principles 1 to 3) whereas “should” to be used for implementation aspects (Principles 4 and 5).</td>
</tr>
<tr>
<td></td>
<td>“Shall” to be used when referring to compliance with international, national and local laws as well as regulations. Otherwise, “should” to be used.</td>
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<tr>
<td></td>
<td>Since the word “shall” may be confusing for non-native English speakers, suggestion of replacing “shall” by “must” (or another word).</td>
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<tr>
<td></td>
<td>“Shall” to be used for no go areas, such as child labour and worst environmental practices.</td>
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<tr>
<td></td>
<td>“Shall not” to be used for corruption and worst practices.</td>
</tr>
<tr>
<td></td>
<td>Following principles and objectives to be separated in short, medium and long term goals. For the Objective on child labour (Obj. 1.3) and the Principle on community relations and resilience (Principle 2): “should not” to be used for short-term goals and “shall not” to be used for medium and long-term goals. For the Principle on environmental protection and conservation (Principle 3): “shall” to be used in the short-term goals whereas “shall not” to be used during the medium and long term goals. However, this proposition was not agreed by everyone.</td>
</tr>
<tr>
<td></td>
<td>Attributing “shall” or “should” for each principle and/or objective would be adding too much value to some of them and putting some principles and/or objectives above others.</td>
</tr>
<tr>
<td></td>
<td>“Shall” and “should” may be difficult for some readers to differentiate, especially for non-native English speakers. Hence add and define both terms in the “terms and definitions” section of the Guidance Principles.</td>
</tr>
<tr>
<td></td>
<td>According to ISO, “shall” to be used for requirements and “should” to be used for recommendations. Since the Guidance Principles might become a standard it would be better to comply with the ISO rules as soon as possible.</td>
</tr>
<tr>
<td></td>
<td>The use of “should” might not have enough weight and hence might be neglected by readers.</td>
</tr>
<tr>
<td><strong>Q2: Phasing out child labour</strong></td>
<td>Important to differentiate between child labour (to be phased out by enacting laws and enforcing them) and working children (to be phased out by additional education possibilities and improving technology).</td>
</tr>
</tbody>
</table>
- Important to differentiate the types of child labour (i.e. mafia, family business) as well as the different processes in which children are involved (i.e. collection of hazardous and non-hazardous waste).

- On how to support the parents and employers:
  - Raise awareness (i.e. abolishment of child labour) should be undertaken by supporting mechanisms.
  - Support provided to parents by “fair wage associations”.
  - Provide incentives to the parents who contribute in eliminate child labour.

- On how the government should act:
  - At first, government should be encouraging (e.g. by providing financial support to cover school fees in order to encourage child to return to formal schooling system). However, if this shows no results, government should be punitive.
  - Government should not be punitive but should provide encouragement, non-judgemental hands on support and counselling.
  - Government should establish an age limit – issue: how to ensure this.
  - Government should be punitive towards the OBA but not to SA.
  - Government to provide financial resources in order to support initiatives to eliminate child labour.
  - Government to provide/ensure access to school for children using different programmes.

- ILO should be contacted in order to get some advice on how to combine economic impact with schooling.

- Actors of the supply chain have the responsibility to not accept child labour.

- OBA to ensure minimum age of the employees.

### Q3. Principle 3

- An additional question was raised by one of the groups on how the siting of the OBA/UBA can avoid areas of high biodiversity without imposing too much burden.
- Accumulation of toxins in the food chain are priority biodiversity issues for secondary metals.
- SA and UBA should be careful on choosing their location in order to avoid problems related to protected areas.
- Awareness & training is needed for SA and UBA. Local governments should provide them with working areas.
- Local governments, private sector and consumers should enable conditions.

- On how to support the parents and employers:
  - Raise awareness (i.e. abolishment of child labour) should be undertaken by supporting mechanisms.
  - Support provided to parents by “fair wage associations”.
  - Provide incentives to the parents who contribute in eliminate child labour.

- On how the government should act:
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- ILO should be contacted in order to get some advice on how to combine economic impact with schooling.

- Actors of the supply chain have the responsibility to not accept child labour.

- OBA to ensure minimum age of the employees.
<table>
<thead>
<tr>
<th><strong>Q.4 Timeline of the Stepwise Approach</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Agreement of some participants on the timeline suggested in Draft 2.</td>
</tr>
<tr>
<td>▪ Issue: UBA in developing countries not willing to get formalised because it is too expensive.</td>
</tr>
<tr>
<td>▪ Discussion needed on whether child labour can be avoided without getting formalised.</td>
</tr>
<tr>
<td>▪ The timeline is less an issue; it is more about the incentives for the actors involved.</td>
</tr>
<tr>
<td>▪ Each actor has his particular context and hence will not have the same starting point, clarification is needed on when “Year 0” is starting.</td>
</tr>
<tr>
<td>▪ Important to determinate period for advocacy and promotion after the publication of the Guidance Principles.</td>
</tr>
<tr>
<td>▪ Formalisation should be tailored for each sector (i.e. pickers association).</td>
</tr>
<tr>
<td>▪ Clarification is needed on who is to be addressed: individuals and/or sectors.</td>
</tr>
<tr>
<td>▪ Country tailored timelines to be considered because a fixed timeline might not be visible in a global guideline.</td>
</tr>
<tr>
<td>▪ Issue: there will always be a SA sector because even if individuals transition out there always will be new ones coming in. In this regard, sectors need to be addressed as a whole instead of individuals.</td>
</tr>
<tr>
<td>▪ The stepwise approach should be replaced by a sequential approach – based on relations and not on timelines. In that sense, we should refer to a plan or a sequence but not to a timetable.</td>
</tr>
<tr>
<td>▪ UBA should be formalised in any case.</td>
</tr>
<tr>
<td>Q.5 - Role of OBA in support of UBA and SA</td>
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<tr>
<td>------------------------------------------</td>
</tr>
<tr>
<td>▪ An SA association would be helpful to support the communication efforts on the stepwise approach.</td>
</tr>
<tr>
<td>▪ Issue: OBA and UBA are often in competition hence not clear whether OBA will always want to help UBA.</td>
</tr>
<tr>
<td>▪ OBA to lobby Government in order to help UBA and SA. However, some participants did not agree due to the competition between OBA and UBA.</td>
</tr>
<tr>
<td>▪ OBA to establish social enterprises for UBA.</td>
</tr>
<tr>
<td>▪ OBA to build capacities of UBA and SA.</td>
</tr>
<tr>
<td>▪ Three main groups could support OBA: governments (by regulations via EPR, awareness raising, economic incentives), international organisations (by providing funds, space for agreements and visibility) and big producers (via ERP policy).</td>
</tr>
<tr>
<td>▪ OBA could support SA (not a requirement) by enabling working conditions and offering awareness raising and training. Voluntary support could also be provided by UN volunteers and senior experts.</td>
</tr>
<tr>
<td>▪ On one hand, OBA do have a mandate in an ethical point of view to uplift the SA. On the other hand, UBA has a price advantage of being illegal so they could have the money to help out the SA.</td>
</tr>
</tbody>
</table>
Annex E. Discussions for Improving the “Understanding of Secondary Metal Supply Chains”

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
<th>Group 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Operators involved in Subsistence Activities willing to form a cooperative/association.</td>
<td>- Motivation to associate comes from individuals’ threat of access to materials. - Association can depend on location/cultural structure</td>
<td>- Risks:  ▪ Afraid to lose income and clients because if they are in an association, they have to share them  ▪ Having more competition  ▪ If they are in an association, they will be more exposed to authorities</td>
<td>- Risks:  ▪ Loosing flexibility</td>
<td>- Risks:  ▪ More exposure to corruption (e.g. they might be forced to get some money from illegal sources)</td>
<td>- Risks:  ▪ High expectations: workers don’t have the time and expertise to comply with the Guidance Principles</td>
</tr>
<tr>
<td></td>
<td>- Benefits:  ▪ Having a legal voice in the society  ▪ Receiving training support  ▪ Networking with other SA associations (increase their knowledge)  ▪ Increased access to clients and materials</td>
<td>- Benefits:  ▪ Accessibility to the market</td>
<td>- Benefits:  ▪ Stability (improved livelihood)  ▪ Improved status  ▪ Increased negotiation power</td>
<td>- Benefits:  ▪ Stabiliy (improved livelihood)</td>
<td>- Benefits:  ▪ Stability (improved livelihood)  ▪ Improved status  ▪ Increased negotiation power</td>
</tr>
<tr>
<td></td>
<td>- Obstacles:  ▪ High expectations: workers don’t have the time and expertise to comply with the Guidance Principles</td>
<td>- Steps to get formalised:  ▪ Organise themselves (gather other interested people, open a bank account, register themselves as an association)  ▪ Consolidate, collect and trade at one site  ▪ Use guidelines for strategy plans</td>
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</tr>
</tbody>
</table>

| An Economic Operator involved in Unofficial Business Activities trying to get her/his activities officially registered. | - Obstacle:  
- The cost of official registration as well as any potential requirements to be met with registration  
- Benefits:  
- Improvement for their social status (image)  
- Having a voice  
- Having better access to clients and materials  
- Obstacles:  
- Even if they get formalised they will still be discriminated  
- They will need to hire more people to undertake the administrative work | - Risks:  
- They might have to relocate  
- Having more competitions  
- Fear of governments and authorities having more control over them  
- Risks:  
- Exposure to corruption  
- Benefits:  
- Legal entity status  
- Acknowledgement by local authorities  
- Access to (global) markets  
- Increased opportunities  
- More stable business  
- Access to financial and technological support  
- Obstacles:  
- Difficulties complying with regulations due to lack of infrastructure and financial resources  
- Lack of obvious benefits as well as clear incentives  
- Out of business while they are getting formalised | - Risks:  
- More exposure  
- Benefits:  
- OBA would have to demand from UBA to be |
<table>
<thead>
<tr>
<th><strong>Business Activities</strong></th>
<th>compliant with law. However, this might be very difficult to achieve. - OBA have to identify the work skills of SA before offering them a partnership.</th>
<th>- May be accused of greenwashing - Benefits: ▪ Less environmental harm ▪ Cleaner supply chain ▪ Stronger partnerships - Obstacles: ▪ Build up their competitors ▪ Higher costs ▪ Limited human resources ▪ Unclear ROI (return of investment)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>An International Product Manufacturer</strong></td>
<td>- <strong>Risks:</strong> ▪ Confidentiality (exposure) ▪ Securing secondary raw materials (volume) ▪ Exposure if they have problems complying with the standard - <strong>Benefits:</strong> ▪ Image will be improved (although this can also have a negative impact because they will be</td>
<td>- <strong>Risks:</strong> ▪ Reduce profit margin in the short term - <strong>Benefits:</strong> ▪ Improve their reputation and image - <strong>Obstacles:</strong> ▪ The government does not cooperate.</td>
</tr>
<tr>
<td>committing to use compliant secondary metals and trace them up the supply chain.</td>
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</tbody>
</table>
| Government Bodies or NGOs willing to promote the Guidance Principles and put supporting mechanisms in place. | - Risks:  
  ▪ Potential reputational damages (e.g. if it is found that some child labour is taking place in the activities that they are promoting as sustainable ones) | - Benefit:  
  ▪ Social inclusion of the actors in the sector  
  - Obstacle:  
  ▪ Monitoring since this might be difficult  
  - Steps:  
  ▪ Align Guidance Principles with National laws  
  ▪ Establish a registry  
  ▪ Build technical and business capacities  
  ▪ Extend credit lines | - Really important that the Guidance Principles are considered as a blueprint by governments. The Guidance Principles could be used to show to the government he way to be followed.  
- Contact UNEP to convince them that Guidance Principles are aligned with the green economy strategy. |

|  | more exposed to control)  
  ▪ Circularity (secure access to resources as well as control over the prices)  
  - Obstacles:  
  ▪ Difficulties to trace after the second tier supplier  
  ▪ There is not a level playing field in each country.  
  - Steps:  
  ▪ Determine sources of metals in the supply chain  
  ▪ Build capacity of suppliers around traceability, best practices, storage etc.  
  ▪ Ensure fair contracts  
  ▪ Report about compliance to authorities |  |  |
<table>
<thead>
<tr>
<th>Obstacles:</th>
<th>Develop enforcement mechanisms (this should not be immediate because it would scare them)</th>
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<tr>
<td>More staff needed to handle additional administrative work</td>
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- The Guidance Principles should be seen as an entrepreneur promoter tool.

- Important to address two different government departments:
  - The environmental management department
  - Department of trade and investment

<table>
<thead>
<tr>
<th>Q1: How can this Worst Practice be phased out in the near future?</th>
<th>Q2: What are the gaps in terms of documentation and guidance?</th>
<th>Q3: Is it more relevant for certain sectors or regions?</th>
</tr>
</thead>
</table>
| **1. Dismantling/course shredding** | - Technical guideline (practical guideline).  
- Lack of operating procedures (illustrations).  
- Prioritisation of practices (instructions).**  
- Metal components (European Commission to publish Best Available Techniques).  
* Further information on the three first points above can be found in the Basel Convention.  
** Further information available can be found at the CFC’s Montreal Protocol. | - Asia and West Africa.  
These regions are not compliant with the Montreal Protocol, The Stockholm Convention and the Minamata Convention. |
| - Worst practices when dismantling include breaking of CRI glass, flat screens, lamps (mercury), without Personal Protective Equipment (PPE).  
- Important to qualify both practices with an adjective because they are not “bad practices” themselves.  
- **Means to phase out:**  
  - Training dismantlers  
  - Provide equipment (PPE)  
  - The most important step: separation (process of depollution) and handling of hazardous products or substances which include CFC’s, oil, ULAB’s, lamps containing mercury, tires, CRI glass, lithium from batteries, airbags, canisters, PCB’s.  
  - Investment in machinery  
  - Environmental impact analysis (soil/water) | | |
| **2. Uncontrolled burning/cooking of secondary metal carriers** | - Basel Convention Guideline documents to be used to harmonise terminology.  
- How much effort would be needed for the reusing chips that carry value? | - Cement kilns: large OBA in Egypt  
- ICT industry for PCB’s / cooking |
| - Perhaps the word “burning” could be substituted by “melting”.  
- Is cooking the right term? Could be replaced by “chip harvesting“.


**Means to phase out:**

- For cooking: providing awareness / information on the economic value of metals (alternatives are needed as well as explanation on benefits of not undertaking this practice, for example taking out the cables instead of burning them would mean that they can sell the plastic). As soon as there is value, it creates initiative.

- Uncontrolled burning needs to be totally banned, based on the Stockholm Convention

**Amalgamation**

- **Means to phase out:**
  
  - Minamata Convention\(^{16}\) establishes a timeline for governments to propose a phase out plan. This is a strong point to defend the fact that this practice should be banned (participants agreed on this point).
  
  - There are two alternatives for this practice:
    - Go for cleaner alternatives (e.g. use of cyanide/bio leeching). More research is needed on alternatives to separate gold.
    - Send this waste to proper

- Is there a "half way" safe way? Need to provide simple measures and alternatives.

- Specific Guidance is missing which needs to be aligned with the Minamata Convention.

- Appropriate technologies are only available by high technology holders. Alternatives are at the early state of research (such as bio-leaching).

Developing countries are most concerned and especially in sectors where waste contains gold such us in the ICT recycling sector.

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\(^{16}\) Minamata Convention on Mercury available at: [www.mercuryconvention.org](http://www.mercuryconvention.org)
facilities. SA to send it to OBA because the latter have the means to treat this waste, but incentives as well as enforcements by local or national governments are needed for this to happen.

- Control of the mercury in the market

## 4. Chemical leaching

- Disagreement on the name of this practice (maybe should be informal/illegal chemical leaching).

- Amalgamation, cooking, chemical leaching is in reality interlinked. Some of the participants suggested to put them all in the same Fact Sheet and call it metal chemical leaching. However, even if they are often performed together, it is possible that different people carry the practices out separately. Therefore, it is better to keep them in separate Fact Sheets.

- Means to phase out:
  - There is no scope for improvement, it should be immediately phased out
  - Regulation of the chemicals, minimum thresholds should be established, hence a license should be required
  - Knowledge exchange: if this practice is done properly and with the right equipment, it should not be harmful

- Sources to look at:
  - Guidelines applicable to E-Waste Management developed by the Mobile Phone Partnership Initiative (MPPI) and the Partnership for Action on Computing Equipment (PACE)
  - Basel Convention R4 Guidance
  - OECD Critical Metals in Mobile Phones

## 5. Uncontrolled open dumping

- This practice implies throwing any waste

- Long term stockpile.

- Africa
- This can be done by private persons as well as recyclers
- The act of digging a small hole, dumping your waste in it and then covering it up also consists of uncontrolled open dumping.
- Means to phase out:
  - Increase awareness: some people do not know the harm they do and do not see the value in the waste
  - Develop alternatives (incentives will create alternatives)
  - Assign responsibilities (buy back schemes)

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<tr>
<td>- Information is needed for the consumers to know where to bring their waste.</td>
<td>- In India, there is less dumping because everything gets collected (depends on the market).</td>
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<td>- General information is needed on proper channels as well as proper waste management.</td>
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<td>- Worst Practices to become a standalone document. A Manual should be added for improving practices because they are a moving target (due to changes in technology). Better that the Guidance Principles stay simple.</td>
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