

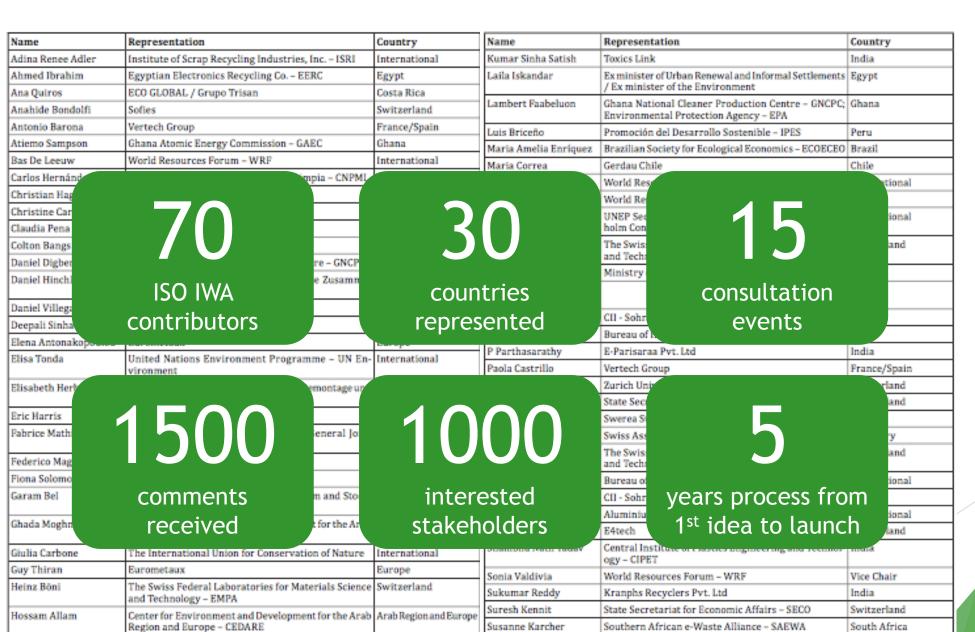
#### Turning waste into resources for development



#### <u>SRI Global Roundtable</u>

#### an ISO Process







SRI builds capacities for sustainable recycling in developing countries. The programme is funded by the Swiss State Secretariat of Economic Affairs (<u>SECO</u>) and is jointly implemented by the Swiss Federal Laboratories for Materials Science and Technology (<u>Empa</u>) and the World Resources Forum (<u>WRF</u>). It builds on the success of implementing e-waste recycling systems together with various developing countries since more than fifteen years.



Schweizerische Eidgenossenschaft Confédération suisse Confederazione Svizzera Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs, Education and Research EAER State Secretariat for Economic Affairs SECO



Materials Science and Technology







#### **Recycling** Initiatives

SRI improves local capacity for sustainable recycling together with private and public institutions, as well as the informal sector in Colombia, Egypt, Ghana, Peru and South Africa



#### Global Roundtable

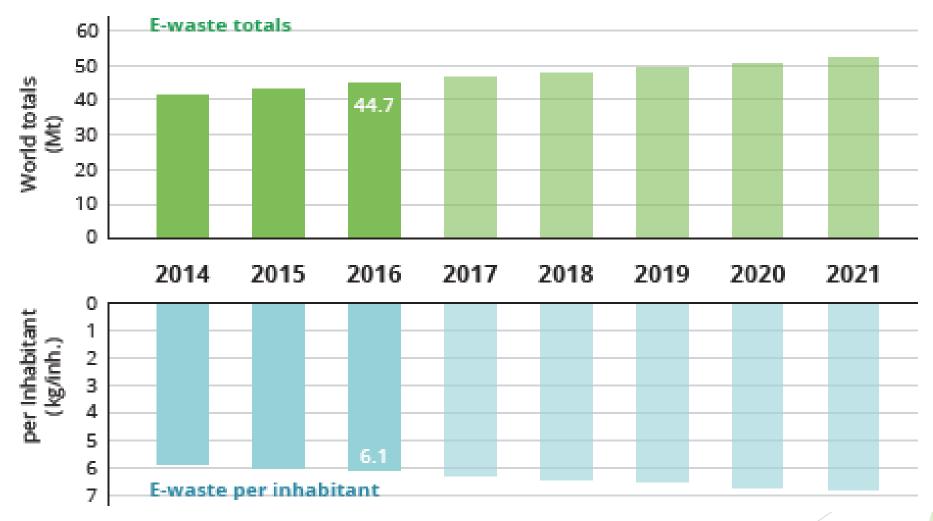
Together with it's stakeholders, SRI facilitates the development and implementation of the Guidance Principles for the Sustainable and Inclusive Recycling of Metals (ISO IWA 19: 2017).

# SRI and the SDG's - heavily interlinked





# While the global primary metal supply is critical, waste streams are growing



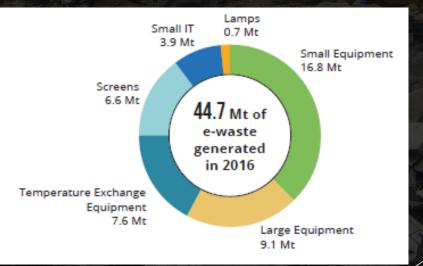
Source: European Commission; UNU/ITU/ISWA: Global E-waste monitor 2017







#### E-waste is the fastest growing waste stream in the world



Source: UNU/ITU/ISWA: Global E-waste monitor 2017



## End of Life Recovery Rates are still low

1 H																	2 He
3 Li	4 Be											5 <b>B</b>	6 <b>C</b>	7 N	8 <b>0</b>	9 F	10 Ne
11 Na	12 <b>Mg</b>	-										13 Al	14 Si	15 <b>P</b>	16 <b>S</b>	17 <b>Cl</b>	18 <b>Ar</b>
19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
K	<b>Ca</b>	<b>Sc</b>	<b>Ti</b>	V	Cr	<b>Mn</b>	<b>Fe</b>	<b>Co</b>	Ni	<b>Cu</b>	<b>Zn</b>	<b>Ga</b>	Ge	<b>As</b>	<b>Se</b>	<b>Br</b>	<b>Kr</b>
37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
Rb	<b>Sr</b>	<b>Y</b>	<b>Zr</b>	Nb	<b>Mo</b>	<b>Tc</b>	<b>Ru</b>	<b>Rh</b>	<b>Pd</b>	Ag	Cd	In	Sn	Sb	<b>Te</b>	I	<b>Xe</b>
55	56	*	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86
Cs	<b>Ba</b>		Hf	<b>Ta</b>	<b>W</b>	<b>Re</b>	<b>0s</b>	Ir	<b>Pt</b>	<b>Au</b>	Hg	<b>Tl</b>	Pb	<b>Bi</b>	Po	At	<b>Rn</b>
87	88	**	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118
Fr	<b>Ra</b>		<b>Rf</b>	<b>Db</b>	<b>Sg</b>	Sg	<b>Hs</b>	Mt	<b>Ds</b>	<b>Rg</b>	Uub	Uut	Uug	<b>Uup</b>	Uuh	Uus	Uud

50% 25-50% > 10-25% 1-10% < 1%

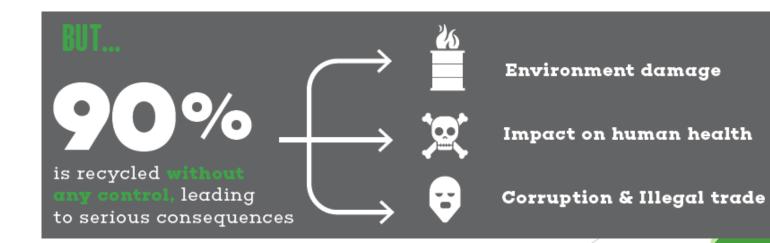
* Lanthanides	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71
	La	<b>Ce</b>	<b>Pr</b>	Nd	<b>Pm</b>	Sm	<b>Eu</b>	Gd	<b>Tb</b>	<b>Dy</b>	<b>Ho</b>	<b>Er</b>	<b>Tm</b>	Yb	Lu
** Actinides	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103
	<b>Ac</b>	<b>Th</b>	<b>Pa</b>	U	<b>Np</b>	<b>Pu</b>	<b>Am</b>	<b>Cm</b>	<b>Bk</b>	Cf	<b>Es</b>	<b>Fm</b>	<b>Md</b>	No	<b>Lr</b>

Source: IRP: Recycling rates of metals 2011



### E-waste is a real opportunity





Source: Sustainable Recycling Industries Programme 2017 Standards needed to avoid supply chain risks and protect the informal sector

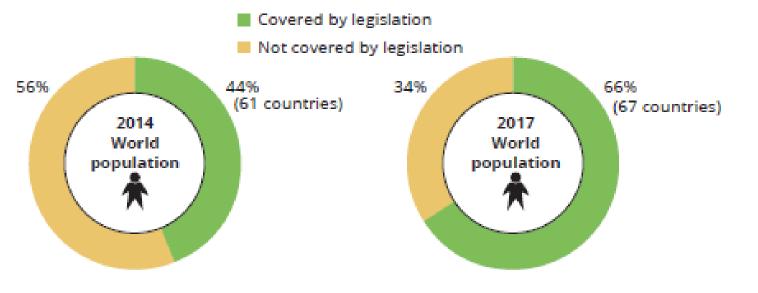


- Critical raw materials
- Voluntary certification scheme for waste treatment
- For collection, transport and treatment facilities





World population (and number of countries) covered by e-waste legislation in 2014 and 2017





Source: UNU/ITU/ISWA: Global E-waste monitor 2017 A practical guide for the systemic design of WEEE management policies in developing countries



Sandra Méndez-Fajardo Heinz Böni, Carlos Hernández, Mathias Schluep, Sonia Valdivia

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#### SRI 2.0 Will run from 2019 to 2023

**Objectives and activities:** 

▶ Initiative a will be intlemanted intative frameworks that enable the

- implementation of sustainable e-waste management systems
- Establish pormative requirements and performance measures. They ensure a level playing field
- Egypt Advance the professionalization of the recycling industry by creating optimized
- ► and supplimable value chains and skilled businesses
- Provide locally adapted concepts and solutions for the safe treatment of problematic waste fractions
- SRI concepts and methods are strengthened in exchange with the international community of practice and have proliferated as global public goods. The Guidance principles will be transferred into an ISO standard.





#### SRI 2.0: Want to be part of the global roundtable connecting industry, policy makers and civil society?

#### Join us!



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www.wrforum.org sustainable-recycling.org



