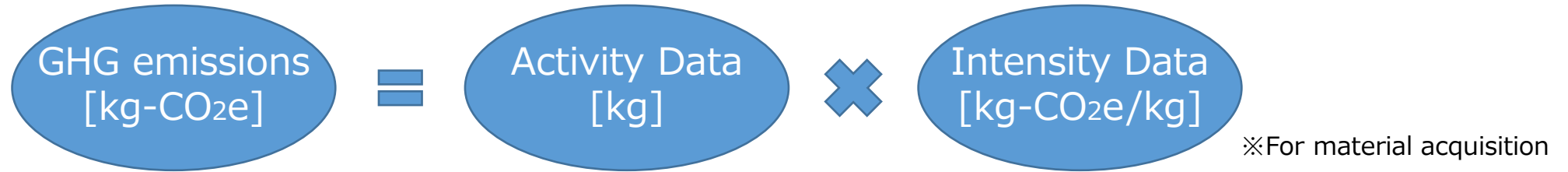


A-LCA IWG SG2 input

2024.Apr.18-19

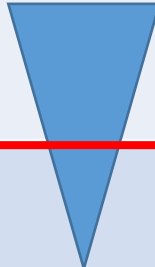



Isao Tabushi / JASIC (Japan)



- **Both Activity Data & Intensity Data can be Primary Data or Secondary Data.**
- **It is nearly impossible to get the all data by Primary Data.**
- **Therefore, Secondary Data discussion is needed.**
- **SG2 has discussed Material Classifications, these materials need to set Secondary Data for Intensity Data.**
- **To harmonize Secondary Data as one specific Data Set, has difficulty of consensus.**
- **SG2 propose to nominate the list of several Data Sets as preference.**

Primary Data : product specific data
Secondary Data : industrial average data

Secondary Data Sets discussion

Harmonized Level	Description	Difficulty of consensus	Fairness for all user	Target
Level 4	Develop New Deliciated DB for A-LCA	High	High	
Level 3	Select one common DB from existing DB for A-LCA			
Level 2	Nominate several common DB from existing DB for A-LCA			← Proposal
Level 1	No decision making of DB selection for A-LCA	Low	Low	

Need to be discussed Harmonized Level of Secondary Data Sets

Data set name	Recommender
GREET	JASIC, OICA, VECC
IDEA	JASIC, OICA
LCIDB	OICA
CALCD	OICA
Ecoinvent	OICA, VECC
GaBi Databases	OICA, VECC
EF compliant dataset	OICA
Each industry association dataset	JASIC, European Aluminum

Adoption of UUID to Material Classifications

Material	No	Upstream	Process name	ID	No	Downstream	Process name	ID
Steel	1	Blast furnace	Crude steel, convert furnace method	221115201pJPN	1	Cast iron	Pig iron castings for machinery	225111000pJPN
	2	Methane DRI	Pig steel_Methane_DRI_1	AIST_JAMA_001	2	Cast steel	Ordinary steel castings (cast steel) (including cast steel pipes)	225311000pJPN
			Crude steel_Methane DRI_2	AIST_JAMA_001A	3	Hot-rolled steel sheet	Ordinary steel medium and thin plates (less than 6 mm thick, including low-mo plates and electric steel plates) , converter method	222118201pJPN
	3	Hydrogen DRI	Hydrogen,SMR (Gray)	AIST_JAMA_021	4	Cold-rolled steel sheet	Cold-rolled ordinary steel sheet (including cold-rolled low-mo steel sheet and recycled finished steel sheet) , converter method	222212201pJPN
			Hydrogen,SMR +CCS (Green)	AIST_JAMA_022	5	Electromagnetic steel sheet	Cold-rolled electric steel strip, converter method	222213201pJPN
			Hydrogen,Renew Electrolysis (Blue)	AIST_JAMA_026	6	Hot-rolled hot-dip galvanized steel sheet	Hot rolled hot dip galvanized steel sheet, converter method	AIST_JAMA_000A
	4	Electric furnace	Crude steel, electric furnace method	221115202pJPN	7	Hot-rolled electrogalvanized steel sheet	Hot rolled electrogalvanized steel sheet, converter method	AIST_JAMA_000B
					8	Cold-rolled hot-dip galvanized steel sheet	Hot dip galvanized steel sheet, converter process	224111211pJPN
					9	Cold-rolled electrogalvanized steel sheet	Electrogalvanized steel sheet, converter process	224111221pJPN
					10	Carbon steel bar/wire rod	Ordinary steel wire rod and bar in coil, converter process	222116201pJPN

**SG2 has discussed adoption of UUID to each materials. But gave up...
⇒ Finally, SG2 decide just to nominate the Data sets List.**

Appendix

Material category	No	Upstream	No	Downstream
Steel	1	Blast furnace	1	Cast iron
	2	Methane DRI	2	Cast steel
	3	Hydrogen DRI	3	Hot-rolled steel sheet
	4	Electric furnace	4	Cold-rolled steel sheet
			5	Electromagnetic steel sheet
			6	Hot-rolled hot-dip galvanized steel sheet
			7	Hot-rolled electrogalvanized steel sheet
			8	Cold-rolled hot-dip galvanized steel sheet
			9	Cold-rolled electrogalvanized steel sheet
			10	Carbon steel bar/wire rod
			11	Special steel Bars
			12	Special steel wire rod/spring steel
			13	Stainless steel sheet/bar
			14	Sintered steel

Material category	No	Upstream	No	Downstream
Aluminum	1	Primary aluminum	1	Cast aluminum alloys
	2	Renewable Energy	2	Die-cast aluminum alloys
	3	Inert anode	3	Wrought aluminum(Plate)
	4	Secondary aluminum	4	Wrought aluminum(Extruded)
Copper	1	Pyrometallurgy	1	TPC copper strip
	2	Hydrometallurgy	2	TPC copper wire
			3	OFC copper strip
			4	OFC copper wire

Material category	No	Upstream	No	Downstream
Plastics	1	Fossil resources	1	PP (Polypropylene)
	2	MR (Mechanical recycle)	2	PE (Polyethylene)
	3	CR (Chemical recycle)	3	PVC (Polyvinyl chloride)
	4	Wasted plastics / Recycled oil	4	ABS
			5	PA (Nylon)
			6	PC (Polycarbonate)
			7	PET (Polyethylene terephthalate)
			8	PBT (Polybutylene terephthalate)
			9	PUR (Polyurethane)
			10	POM (Polyacetal)
			11	ASA (Acrylonitrile styrene acrylate)
			12	PMMA (Acrylic resin)

Material category	No	Upstream	No	Downstream
Cathode active material	1	Primary resource	1	LMO
	2	Recycled material	2	NMC111
			3	LFP:Hydrothermal
			4	LFP:Solid State
			5	NMC622
			6	NMC811
			7	NCA
			8	NMC532
			9	NMC95
Anode active material	1	Primary resource	1	Graphite / Carbon
Binder	1	Primary resource	1	Binder(PVDF)
Electrolyte salt	1	Primary resource	1	LiPF6
Electrolyte solvent	1	Primary resource	1	Ethylene Carbonate
			2	Dimethyl Carbonate
			3	Mix
Separator	1	Primary resource	1	Separator(PP,PE)
NMP	1	Primary resource	1	NMP