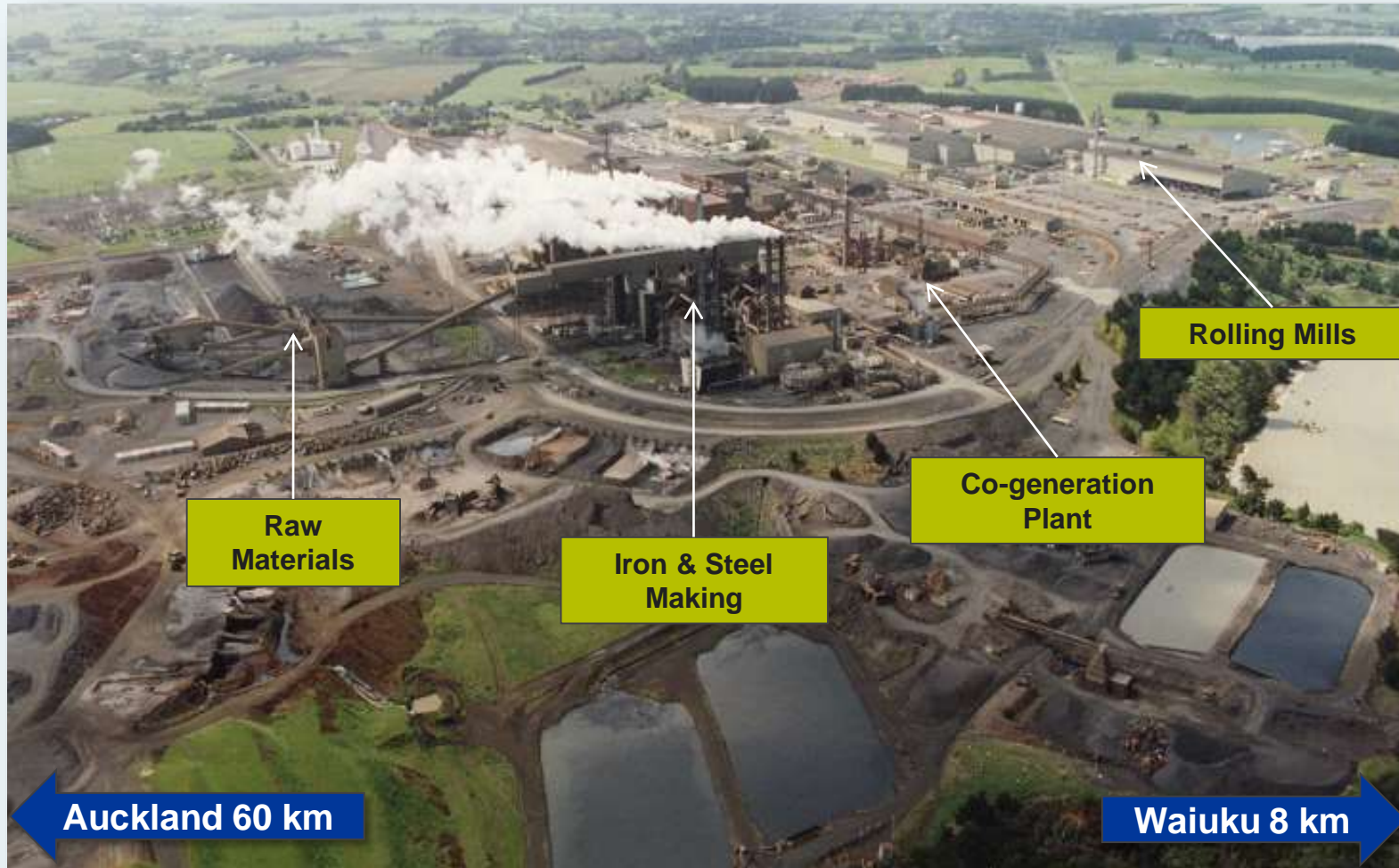




NZ Steel LCA & EPDs

Nov 2019

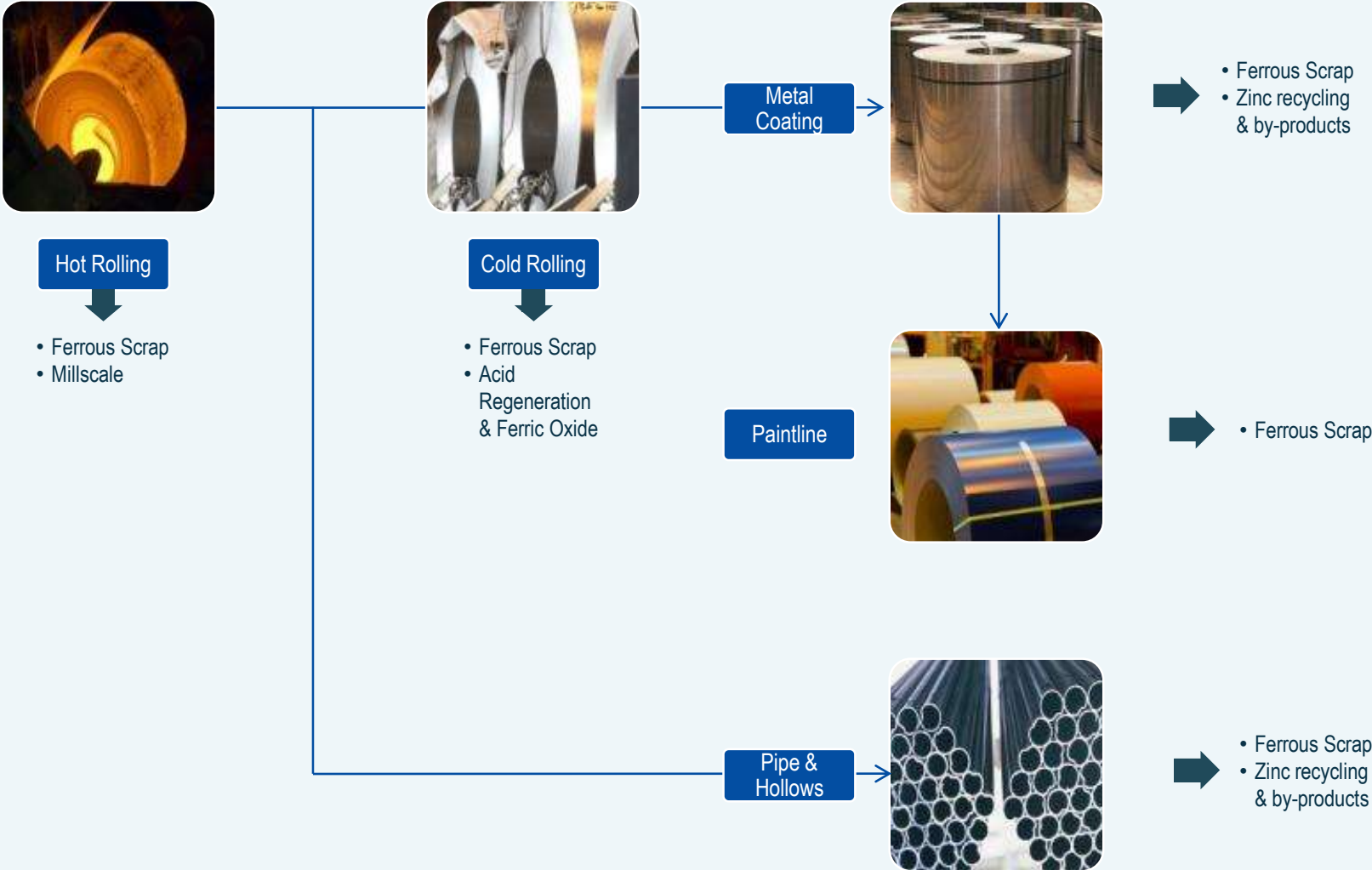
About NZ Steel



EPDs – The Starting Point



Flat and Hollow Products



Sustainability Journey vs Declaration



- Increasing requirement to be more “transparent”
- Requires a willingness to publish key data

A “Social Licence to Operate”

- Bluescope Sustainability Report
 - Responsible Sourcing
 - Responsible Consumption and Production
 - Innovative Product Design
 - Business Governance
 - Clean Water and Sanitation
 - Climate Action
- ISO 14001 Management System
- Publishing of EPD’s

Published EPDs



Published EPDs

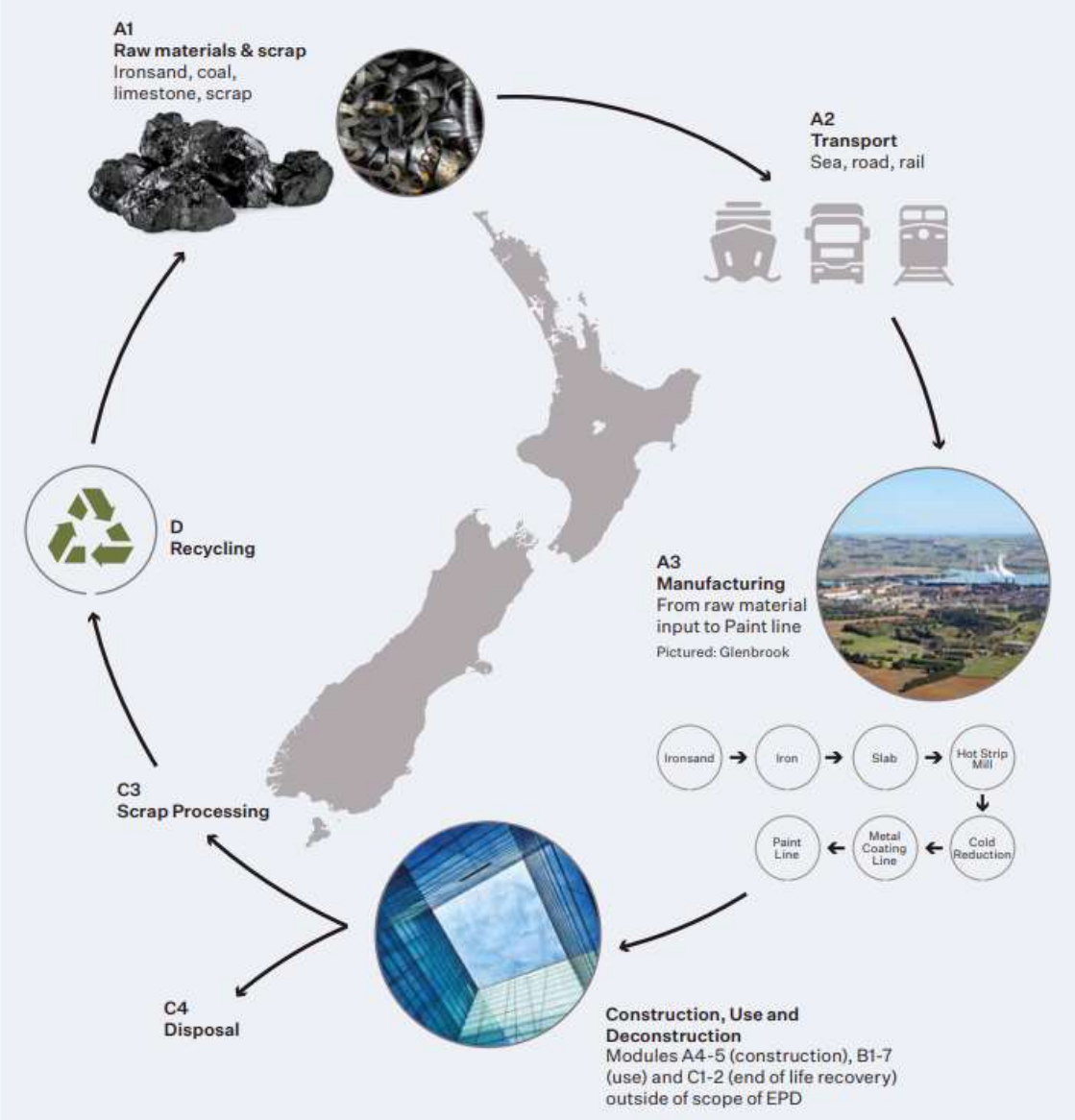


Table 2. Life Cycle Impact Assessment Indicators COLORSTEEL® Endura® (Declared unit =1m²)

Indicator	Unit	COLORSTEEL® Endura® 0.4mm				COLORSTEEL® Endura® 0.55mm			
		A1-A3	C3	C4	D	A1-A3	C3	C4	D
Global warming potential	kg CO ₂ -eq.	13.5	0.0261	0.0177	-3.93	17.6	0.0352	0.0238	-5.48
Depletion potential of the stratospheric ozone layer	kg CFC11-eq.	3.97E-09	6.40E-17	4.68E-15	2.51E-08	3.94E-09	8.62E-17	6.31E-15	3.45E-08
Acidification potential of land and water	kg SO ₂ -eq.	0.119	8.31E-05	4.91E-05	0.00404	0.160	1.12E-04	6.63E-05	0.00519
Eutrophication potential	kg PO ₄ ³⁻ -eq.	0.00641	1.07E-05	6.18E-06	6.63E-04	0.00844	1.44E-05	8.34E-06	8.74E-04
Photochemical ozone creation potential	kg C ₂ H ₄ -eq.	0.00690	5.90E-06	4.42E-06	-0.00140	0.00886	7.96E-06	5.96E-06	-0.00194
Abiotic depletion potential – elements	kg Sb-eq.	1.14E-04	1.41E-08	1.91E-09	-1.31E-06	1.14E-04	1.90E-08	2.58E-09	-1.80E-06
Abiotic depletion potential – fossil fuels	MJ	176	0.322	0.256	-37.9	227	0.434	0.345	-52.4

Internal Benefits



- More frequent enquiries from Customers
 - EPDs
 - Environmental Choice
 - Declare
 - Red List Declarations
 - GreenStar
 - HomeStar
- Development of EPDs required extensive product and process data to be collected
- Confident in using our Life Cycle Inventory to drive strategy and improvement

Internal Benefits – COLORSTEEL® LCA



- Enabled development of Life Cycle Analysis study of COLORSTEEL® products using different material and process inputs
 - Process key inputs
 - Gas, Electricity, Paint, Water, Packaging
 - Evaluated various combinations
 - thinkstep ANZ evaluated all the data and provided an extensive summary of the findings
 - Enabled us to make an objective judgement



Summary



- We are accountable to ensure our processes and products are manufactured and utilised in an environmentally responsible manner
- Becoming more “Sustainable” is a constant objective
- Ultimately needs to be seen as an investment rather than a cost
- Need to start with a good understanding of business processes
- Undertaking the full lifecycle analysis, with third-party verification, gave weight to the output
- Energy efficiency is a key element
- The work has helped to identify the “Hot Spots” and refocus decision making processes





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