Introduction
Dr Nick Coleman
IOM3 SDG 8th June 2017
Prior to the steel industry....

PhD in Physical Chemistry

Development Scientist – City Technology
My time in the Steel industry

- Joined Corus RD&T in 2003 based at Swinden Technology Centre
- Postgraduate Certificate in LCA from Surrey University
- ULCOS
- WorldAutoSteel – Vehicle LCAs and model development
- LCA methodology (e.g. PEF, ISO14040/44 & EN15804)
- Sustainability Assessment tools

http://www.worldautosteel.org/life-cycle-thinking/ucsb-energy-ghg-model/
Currently

Principal Researcher in Product Sustainability
Group Health, Safety and Environment

Responsibilities:
- Development of Environmental Product Declarations
- Manage activities in relation to automotive LCA
- Coordination of Product Environmental Policy within TSE
- Work Package leader in H2020 STYLE project
- Member of a number of LCA and product sustainability working groups
  - WorldAutoSteel, worldsteel and Eurofer
EPDs & EN15804

Module 1: End of Life stage
- Includes properties from:
  - Transport from site to End of Life
  - Disposal at landfill
  - Disposal on site

Module 2: Beneficial use beyond the system boundary
- Includes properties from:
  - Use on site (50)
  - Recycling (82)

Module 3: Product stage (primary processing)
- Includes properties from:
  - Collection of scrap
  - Transportation of scrap
  - Production of steel

Module 4: Product stage (reprocessing)
- Includes properties from:
  - Manufacturing of structural hollow sections

Module 5: Product stage (secondary processing)
- Includes properties from:
  - Production of steel scrap

Module 6: Final product stage
- Includes properties from:
  - Use on site

Module 7: Transport
- Includes properties from:
  - Transportation of scrap

System boundary

Data collection

Modelling

Interpretation
STYLE – H2020 SPIRE4

STYLE focus: pragmatic sustainability tools that can be used by non-specialists

STYLE partners: Britest (coordinator: Amy Peace), Arcelor Mittal, Britest, Carmeuse, Holcim, IVL, RDC Environment, Solvay, Tata Steel, Utrecht University and Veolia

Project Website: www.spire2030.eu/style/
What makes an ‘Ideal Toolkit’?

- Social Impact Module
- Environmental Impact Module
- Economic Impact Module
- Quantitative Comprehensive (LCSA) Sustainability Assessment

Materiality Setup → Integrated Qualitative Screening Tool → Semi-Quantitative Assessment Toolset → Quantitative Comprehensive (LCSA) Sustainability Assessment

<table>
<thead>
<tr>
<th>TRL 4-5</th>
<th>TRL 7-8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab</td>
<td>Pilot Scale</td>
</tr>
<tr>
<td>Stakeholder priorities</td>
<td></td>
</tr>
</tbody>
</table>