



MRA Survey 2018



Survey Structure

Questionnaire, response rate and assumptions



The Survey

- The survey hosted a series of 8 questions to:
 - Determine respondent characteristics
 - Inland or coastal
 - Turnover
 - Number of people employed
 - Domestic or foreign market
 - Ferrous or non-ferrous
 - Determine respondent contribution to the South African metal recycling industry
 - Quantity of each type of metal traded, based on characteristics
- Average time spent on the survey: 9 minutes and 11 seconds
- None of the questions were mandatory, though some formatting rules did apply
 - e.g. enter numbers (integers) to purely numeric questions



Response rate

Total of 83 members on file

- 12 survey invitations did not reach respondents
- Details to 8 of the 12 were updated and re-sent
- Total number of bounces on final survey : 3
- Total invitations sent: 80

Total of 26 complete responses were recorded

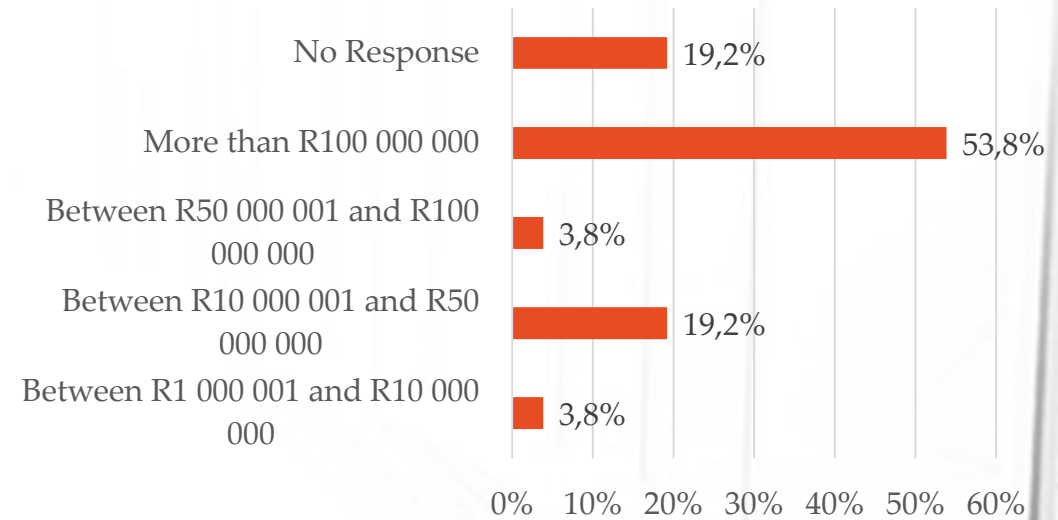
- This is a response rate of 31,3%
 - Uncommonly high for external surveys
- 7 incomplete responses were recorded, personalised reminders to complete did not yield any returns
- It took an average of 9 minutes and 11 seconds to complete



Response interrogation

- 4 Responses were eliminated due to incomplete and/or inconsistent responses
 - Total time to complete the survey was less than 5 minutes for all 4 eliminated responses
 - Some responses were valid and within reasonable margins (standard deviation), and are included in the final results of the survey
- Survey fatigue was also noted in some of the responses
 - Large time difference between first and second section of the survey
 - Responses stop after a certain question and respondents fail to enter their company name in the last field
 - Responses become inconsistent followed by a series of incomplete answers
 - Responses follow a pattern and time per question reduces dramatically

- Responses to one question in particular were inconsistent but this information was not critical for the overall objectives of the survey
 - What is your company's estimated annual turnover?



- For each question assessment we include the number of valid responses used for the assessment denoted by an "n="

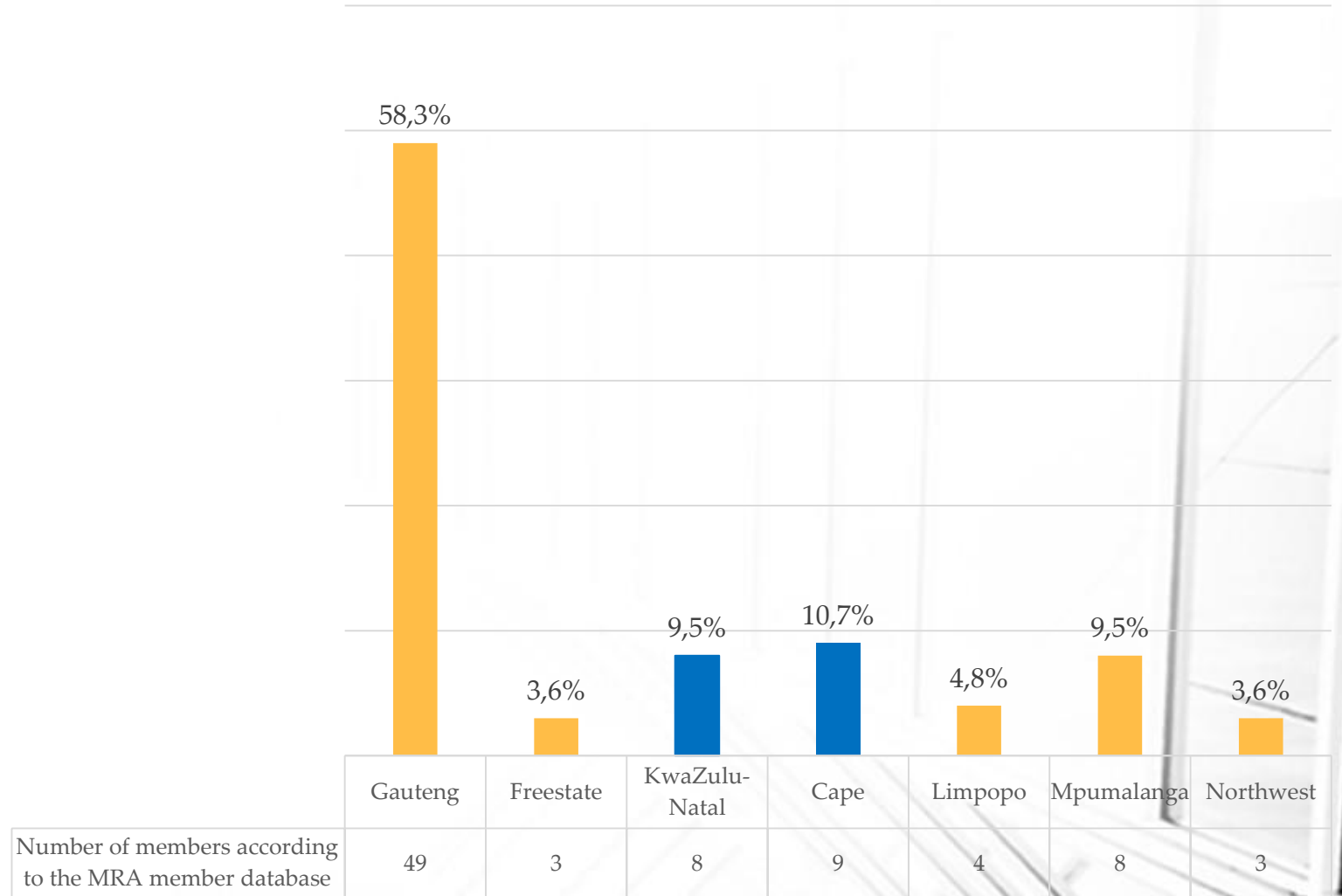
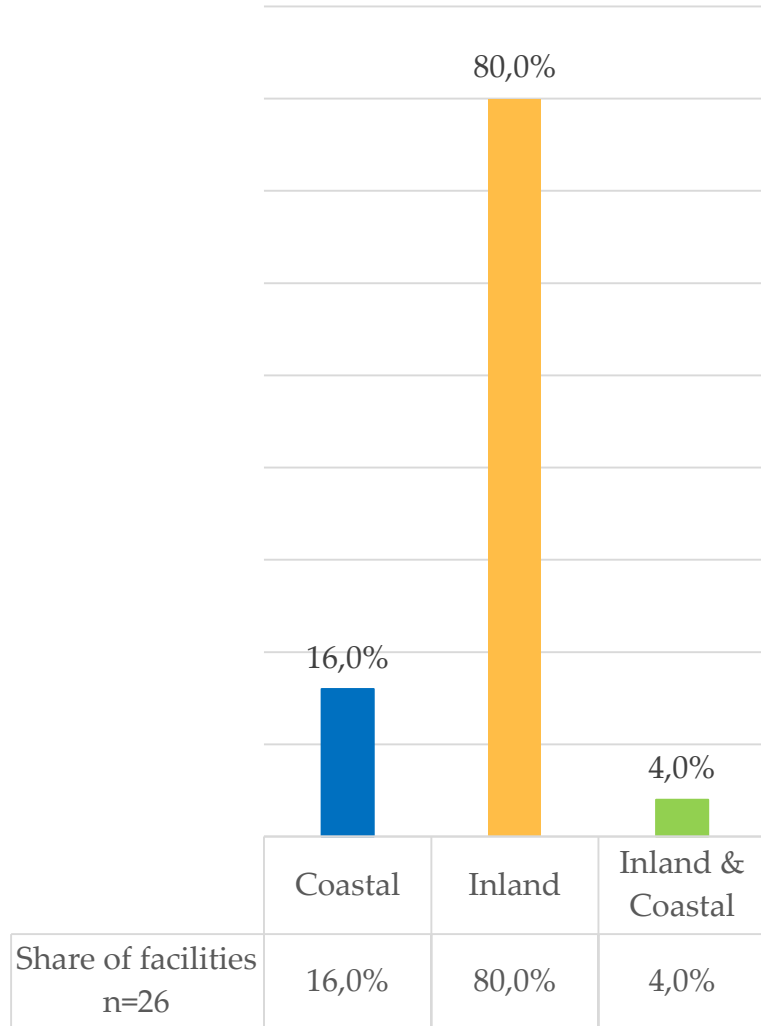


Results

Assessment and extrapolation



Where is the average member located

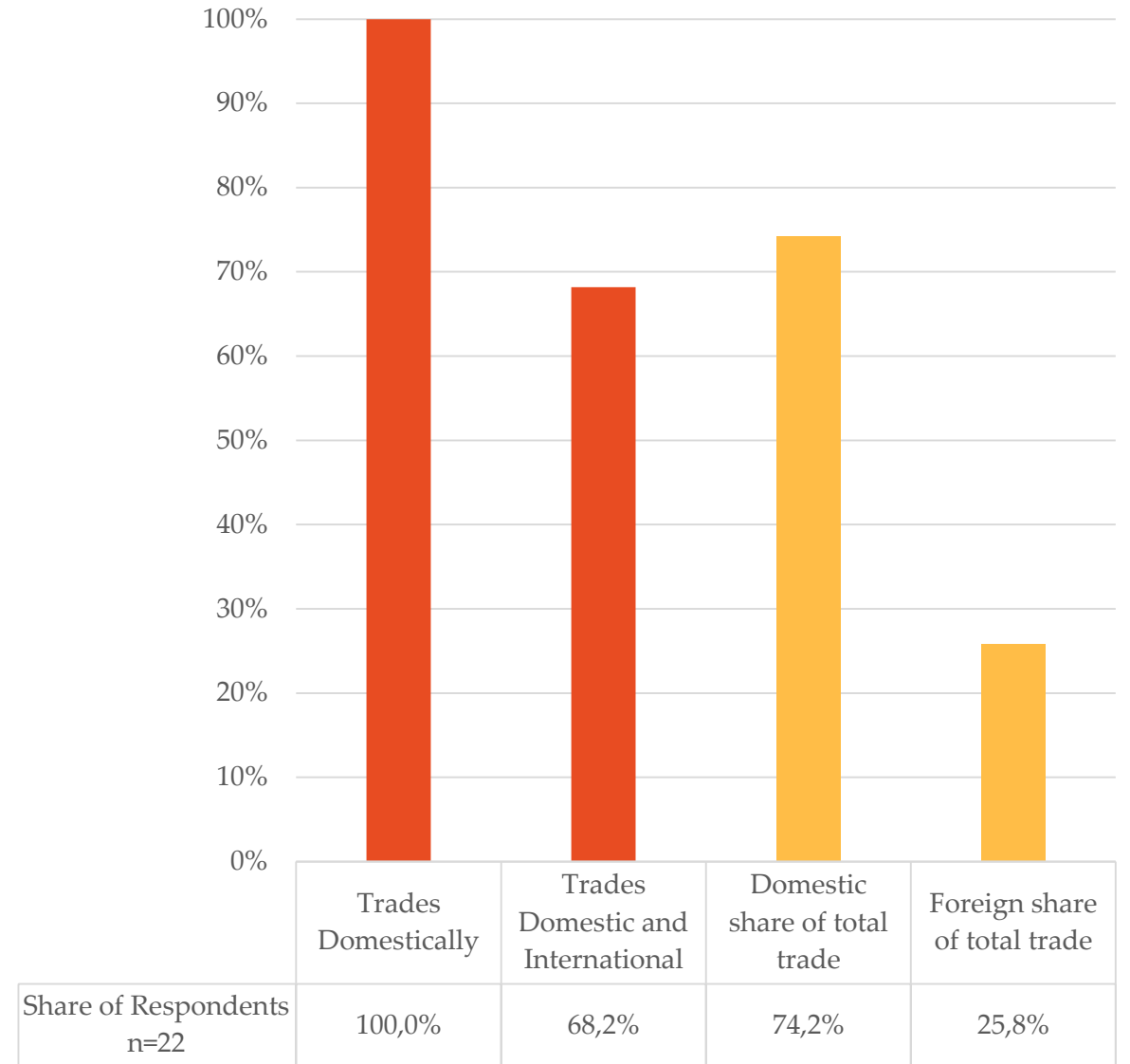




Target markets

Respondents were asked if they sell to the domestic or foreign market, or both, and to give an estimated share of how much goes to each market.

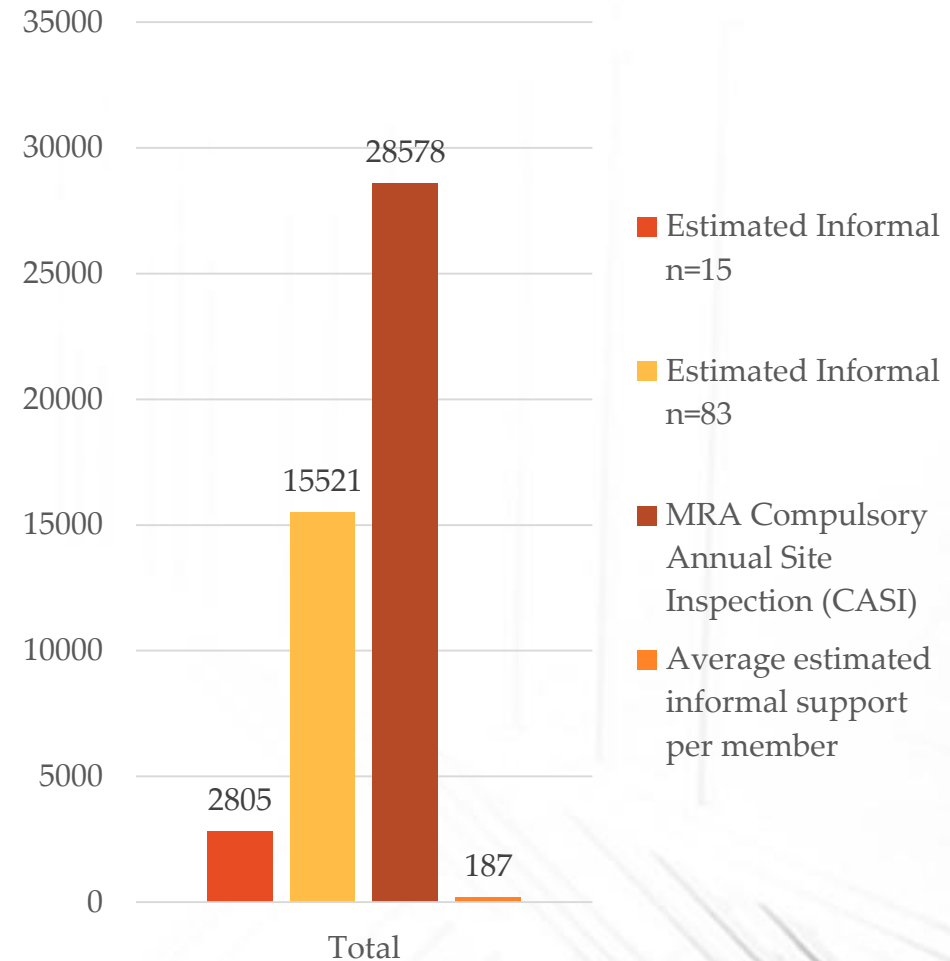
The survey shows that all respondents sell recycled metals domestically and that the majority (74%) of recycled metals sold goes towards the domestic market.





Informal economic support

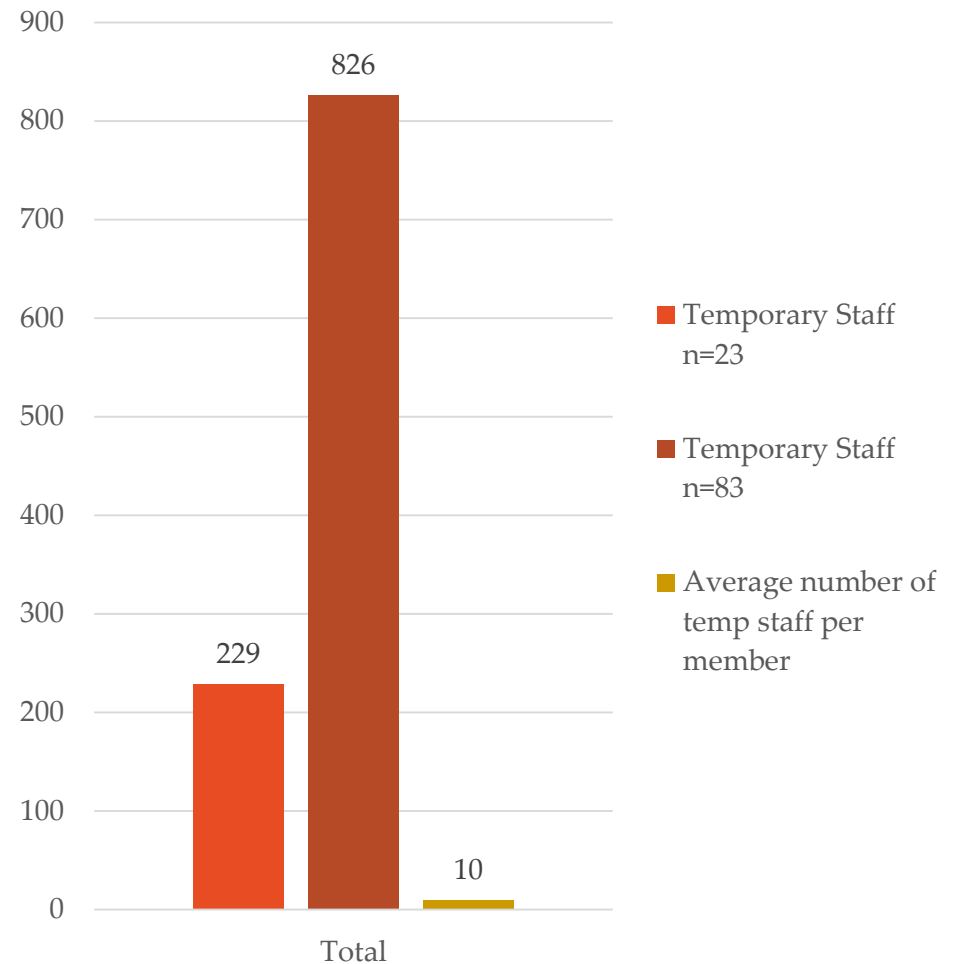
- This question received relatively fewer valid responses, and given the size of the standard deviation on responses, the chart is supplemented with findings from the MRA's CASI
- The results show that the average number of informal labourers supported by an MRA member is 187; the total number supported by respondents is 2 805; and the population estimate is 15 521
 - Who in turn support an estimated additional 46 563 dependents
- Note that data from the MRA compulsory annual site inspections (CASI) shows that MRA members support an estimated 28 578 informal labourers
 - Other larger sample studies have found that the metal recycling industry in South Africa supports up to 444 544 informal labourers which, in turn, would support an additional 1,36 million dependents





Employment of temporary staff

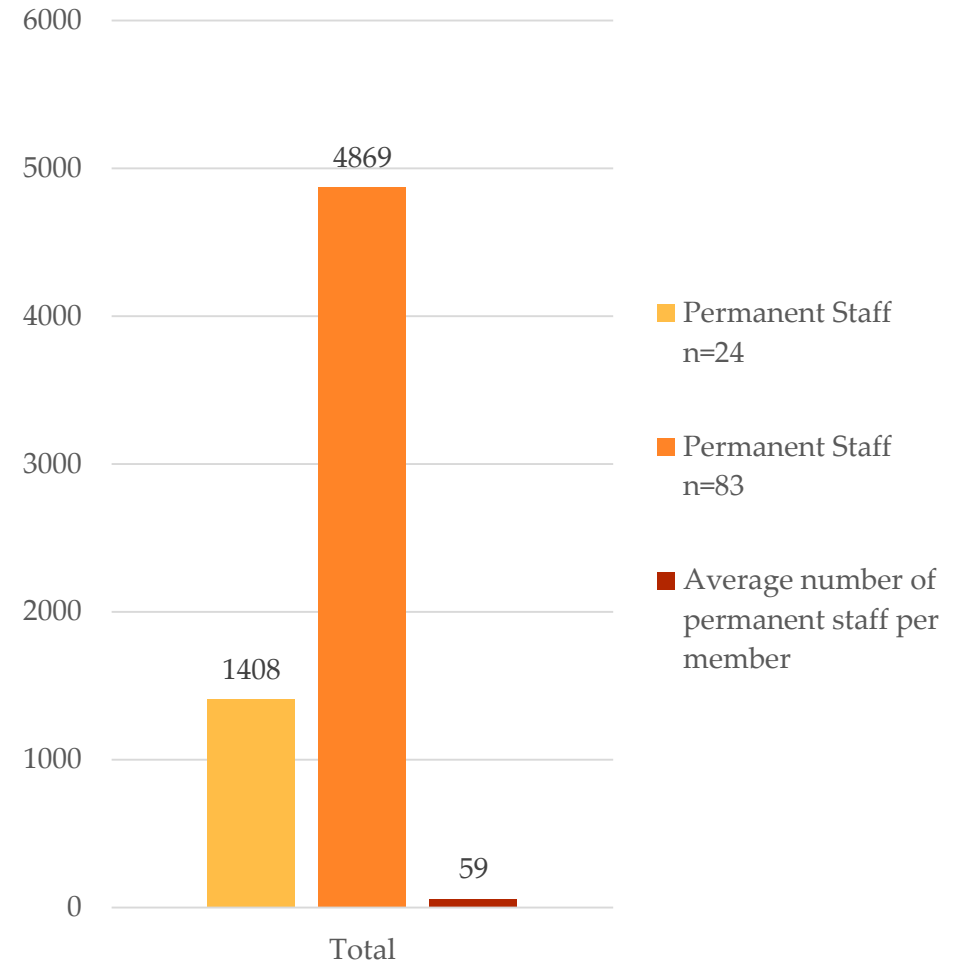
- From the survey responses we see that:
 - the average number of temporary staff employed by an MRA member is 10
 - the total number of temporary staff employed by respondents comes to 229
 - which means, via extrapolation, that the members of the MRA employ an estimated 826 temporary staff per year
- Using a dependent multiplier we estimate that MRA members support an additional 2 478 dependents





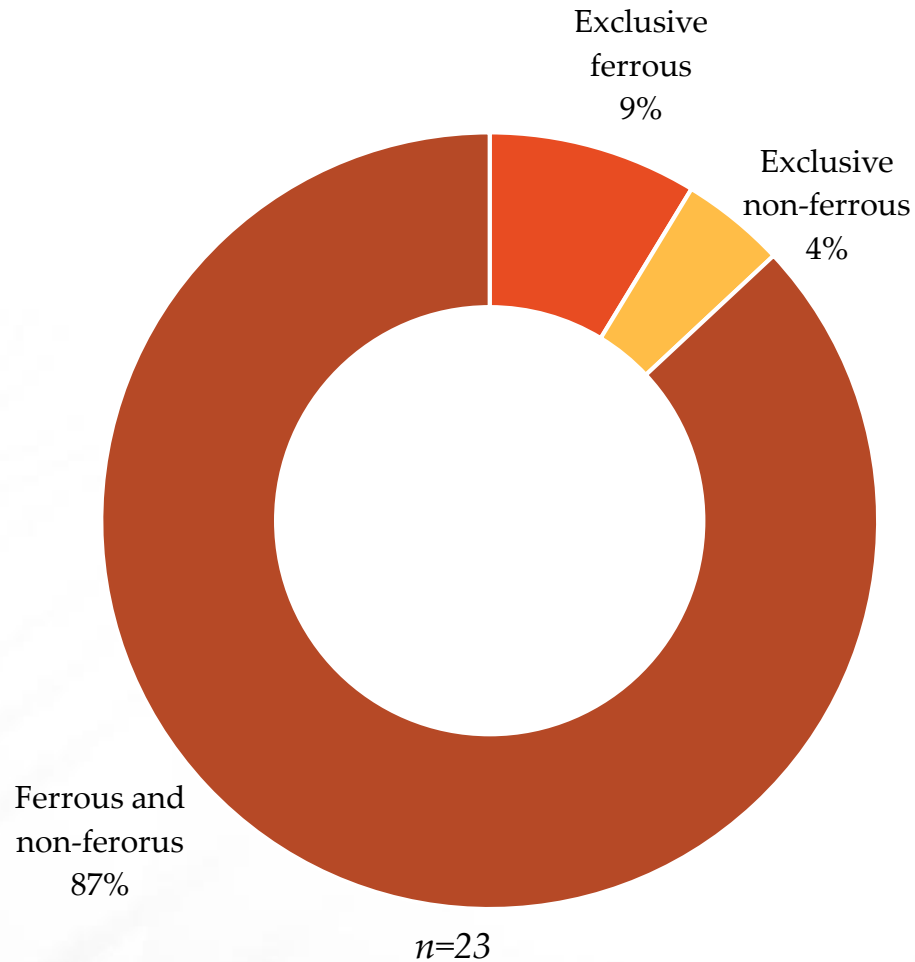
Employment of permanent staff

- From the survey responses we can see:
 - the average number of permanent staff employed by an MRA member is 59
 - the total number of permanent staff employed by respondents is 1408
 - which means that if we extrapolate this average, the members of the MRA employ an estimated 4 869 permanent staff
- Using a dependent multiplier we estimate that MRA members support an additional 14 607 dependents
- This means that the MRA members directly support:
 - 5 695 people through permanent and semi-permanent jobs with 17 085 dependents
 - And up to an estimated 1, 8 million people (including dependents) in the informal economy





Type of metals recycled

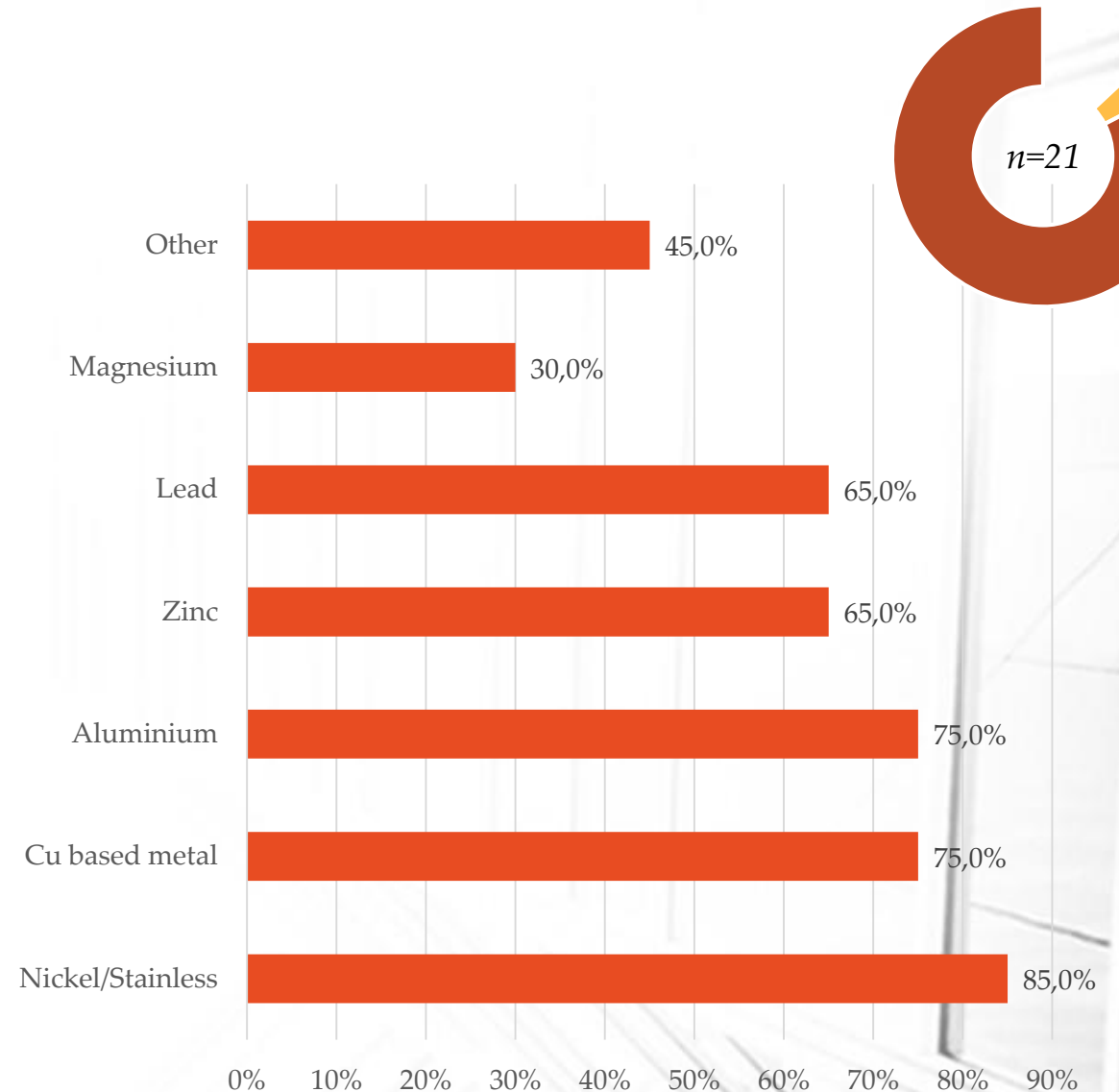


- Most respondents trade both ferrous and non-ferrous metals
- A small minority trade only ferrous metals
- The smallest group of members only trade non-ferrous metals
- The survey further shows that in terms of tonnage traded:
 - MRA members trade predominantly in ferrous metals; an estimated 3,78 million tonnes per annum or 92,8% of all recycled metals traded
 - With non-ferrous metals contributing only a small quantity; an estimated 326 thousand tonnes or 7,2% of all recycled metals traded



Non-ferrous traders

- Members that engaged in trading non ferrous metals typically trade multiple groups of those metals
- The share of members that trade in each group of metals is not a reflection of preference but rather a reflection of availability of the metal group in question
- By far the most traded non-ferrous metal is the group Nickel/Stainless Steel as it is the most widely available non-ferrous metal group
 - 85% of survey respondents



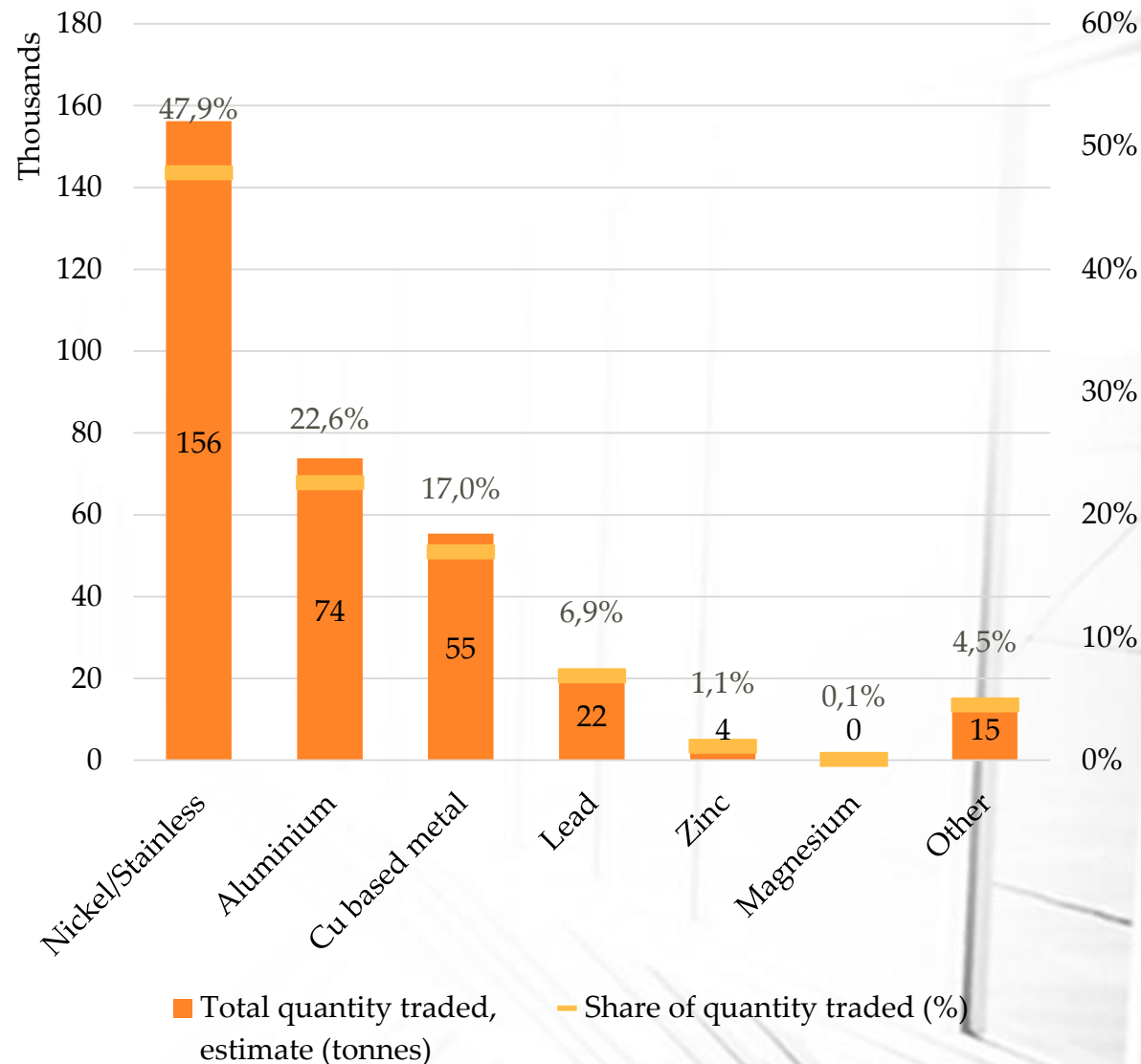


Total & Share of quantity : Non-ferrous

From the survey responses the total annual amount of non-ferrous metals traded by all MRA members (n=83) is estimated to be 326 343 tonnes

Based on average quantity traded, respondents mostly trade Nickel/Stainless Steel (47,9%), due to its high availability

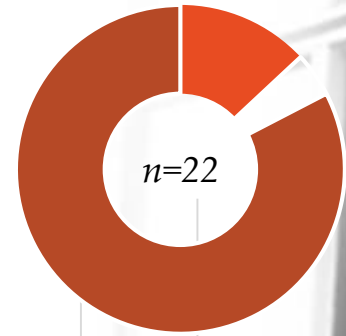
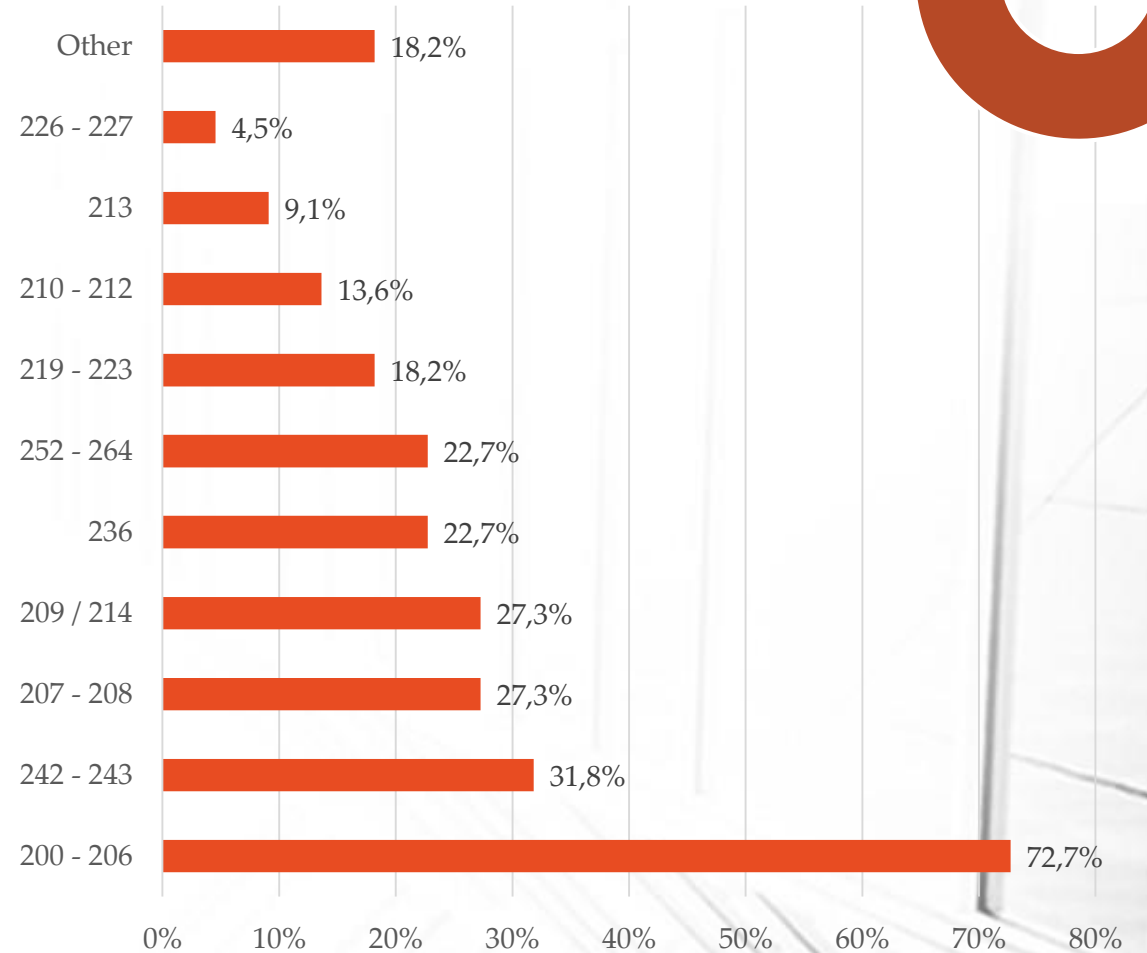
Aluminium (22,6%) and Cu based metal (17,0%) are also popular but traded in smaller quantities. While prices for these groups of recycled metals are good, they are not as widely available as Nickel/Stainless Steel, nor are the profit margins considerably different to the other metal groups





Ferrous traders

- Responses to this section in particular suffered from survey fatigue
- MRA members tend to trade 200-206 (HMS) as it is most widely available
- By far the least traded ferrous metal group is 226-227
 - Briquetted iron borings and Briquetted steel turnings
- While 242-243 is the second most traded ferrous metal it is not traded by a significant amount over 207-207 and 209/214



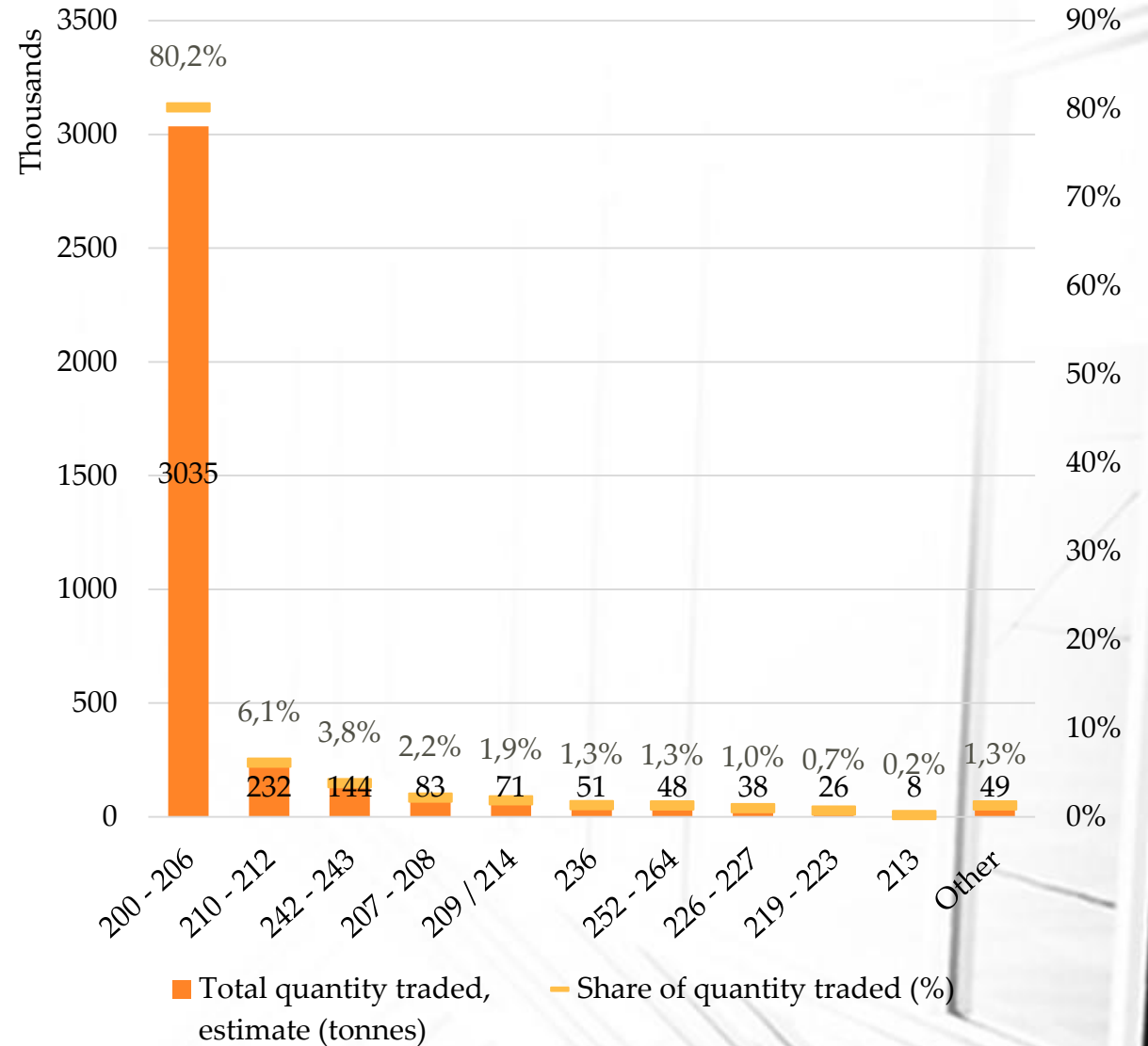


Total & Share of quantity: Ferrous

From the survey responses the total annual amount of ferrous metals traded by all MRA members (n=83) is estimated to be 3,78 million tonnes

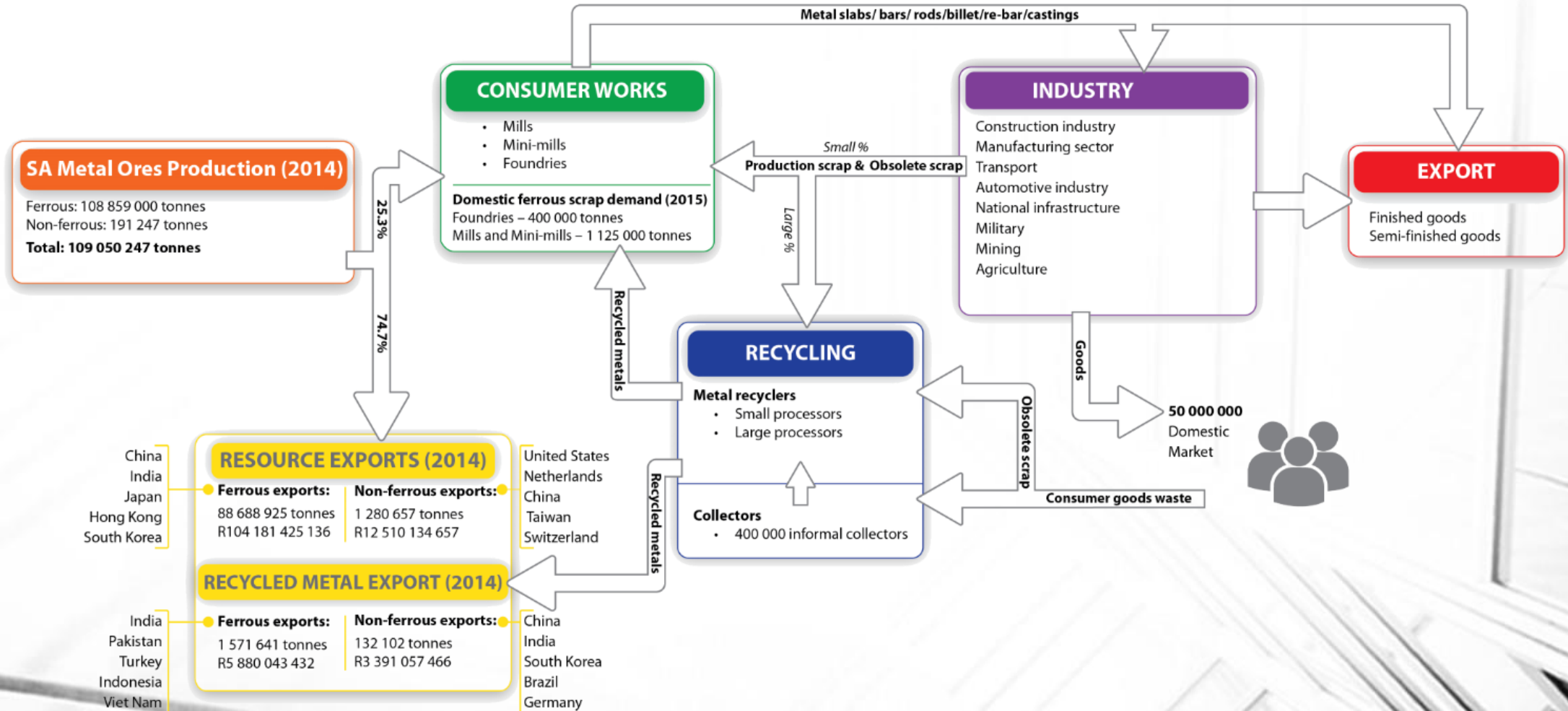
In terms of quantity (tonnes) traded respondents mostly trade 200-206 (80,2%), 210-212 (6,1%) and 242-243 (3,8%)

While respondents trade in a diversity of ferrous grades, they don't trade in large quantities of all grades, as material for all grades are not available in equal amounts





The role of recycling in the metals value chain





Conclusion

- MRA's members extend across the country and provide a significant amount of job opportunities for skilled, semi-skilled and unskilled labourers in the formal and informal sectors.
 - Some have operations at coastal locations that make exports a viable option; however, most are located inland and trade domestically
- The survey results support this statement and shows that all respondents trade domestically
 - While most respondents trade both domestically and internationally the majority of total traded recycled metal goes towards the domestic market with about a quarter going abroad
- By far the most traded metals are from the ferrous group, grades *210 to 212* and in particular grades *200 to 206*
 - Of the 3,78 million tonnes of ferrous metals traded by MRA members an estimated 2,8 million tonnes are available to the domestic market with the balance being exported



Conclusion

- Furthermore, the most popular non-ferrous metals traded are from the *nickel/stainless steel* group and *aluminium*
 - While the *Cu based metals* groups is thought to be a highly traded group (because of its price), relatively small quantities of these metals are traded compared to other metal types
 - This is in part due to relatively lower availability of the metal, stricter regulatory requirements in trading Cu based metal and limited profit incentive due to competitive margins.



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