Theme 6: Understanding changing artisanal milieus and identities

LABOUR MARKET INTELLIGENCE PARTNERSHIP

Shifting occupational boundaries

Considering implications for artisanal skills planning

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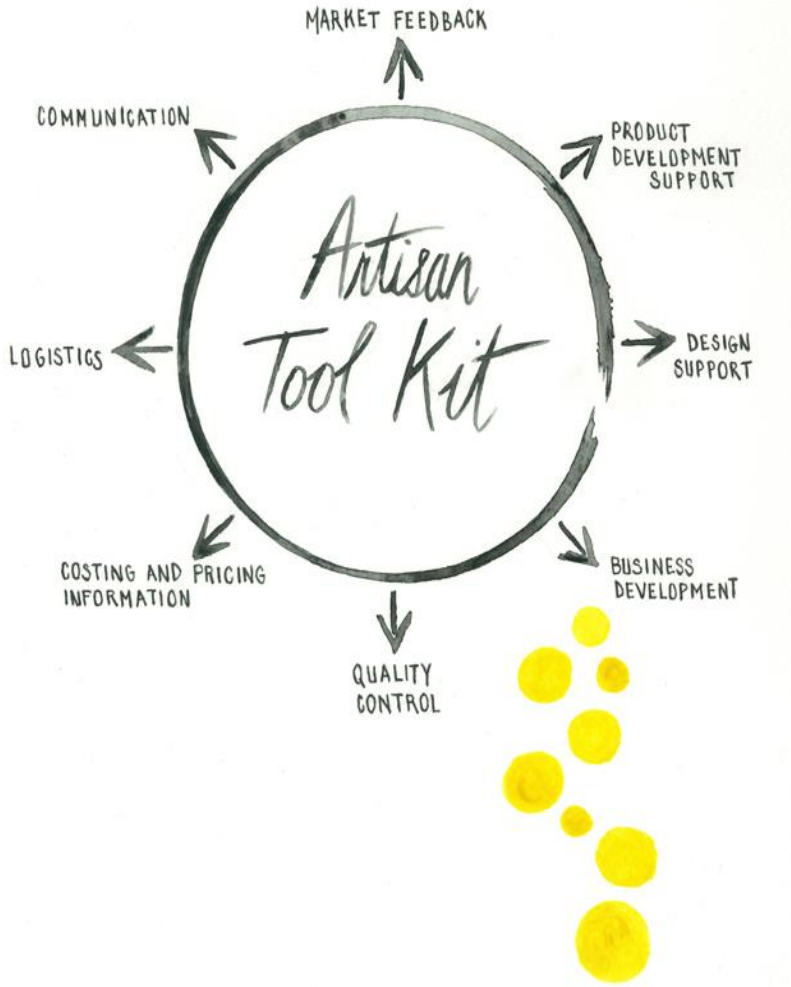
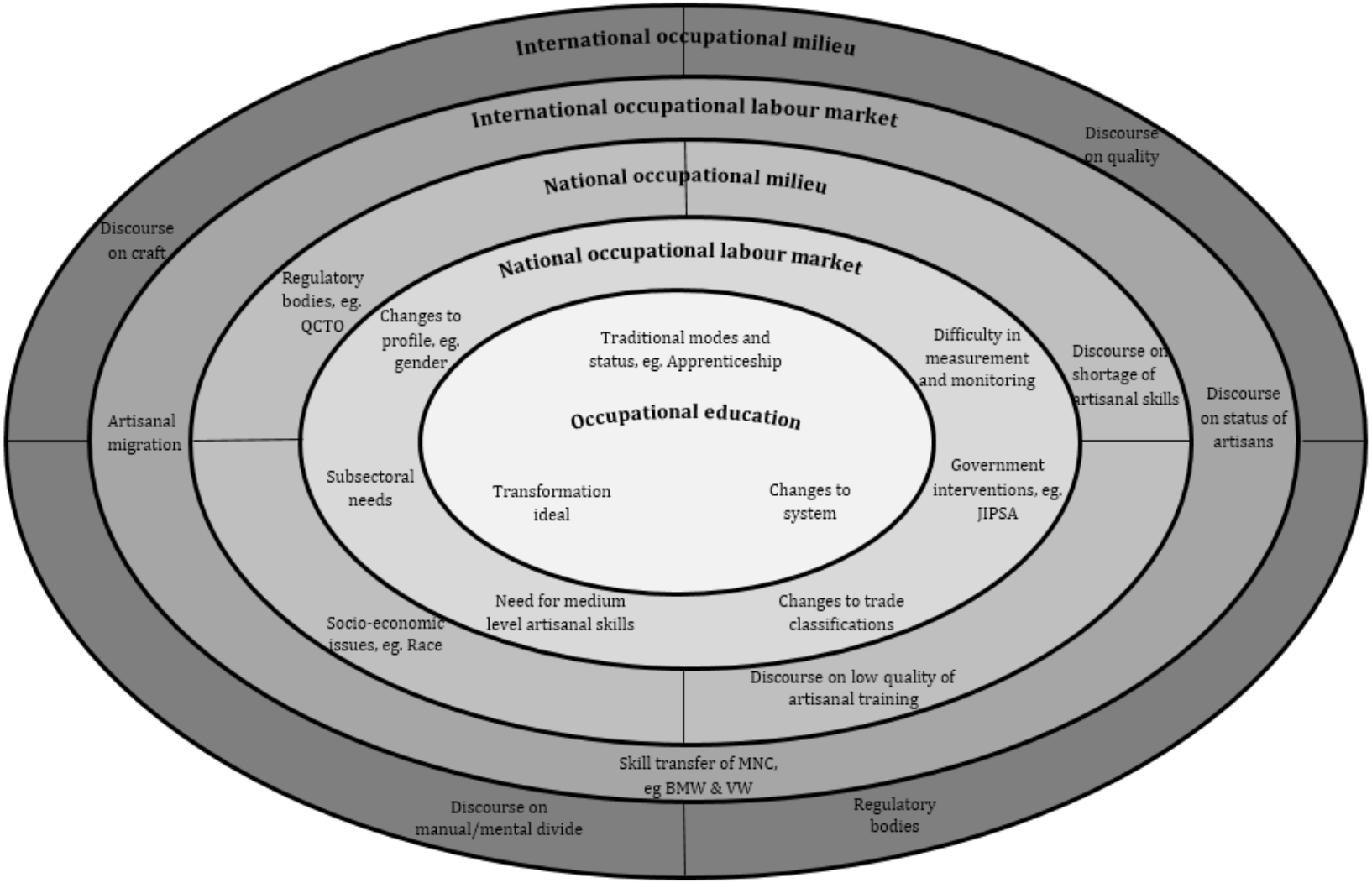
Artisans of the future



Methodological frame



Key research question and links to method

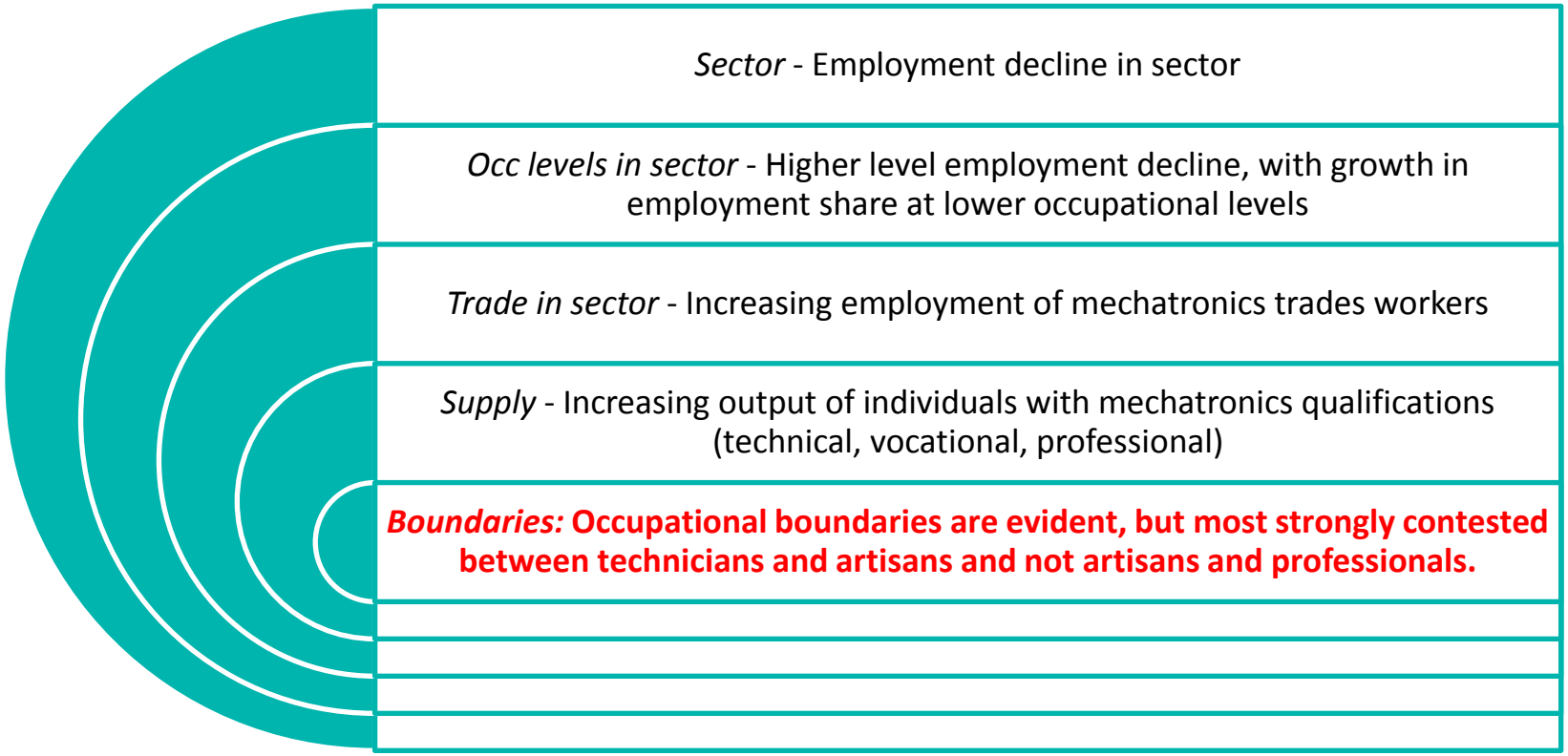
How does the boundary work between high-status and intermediate level employees help us to understand the nature and extent of occupational structural change?

Interpretation at case study level:

- *Establish whether boundaries are present*
- *Establish the nature of boundaries (bases upon which they are established, maintained/transformed)*
- *Establish whether there has been shifts in these boundaries over time*

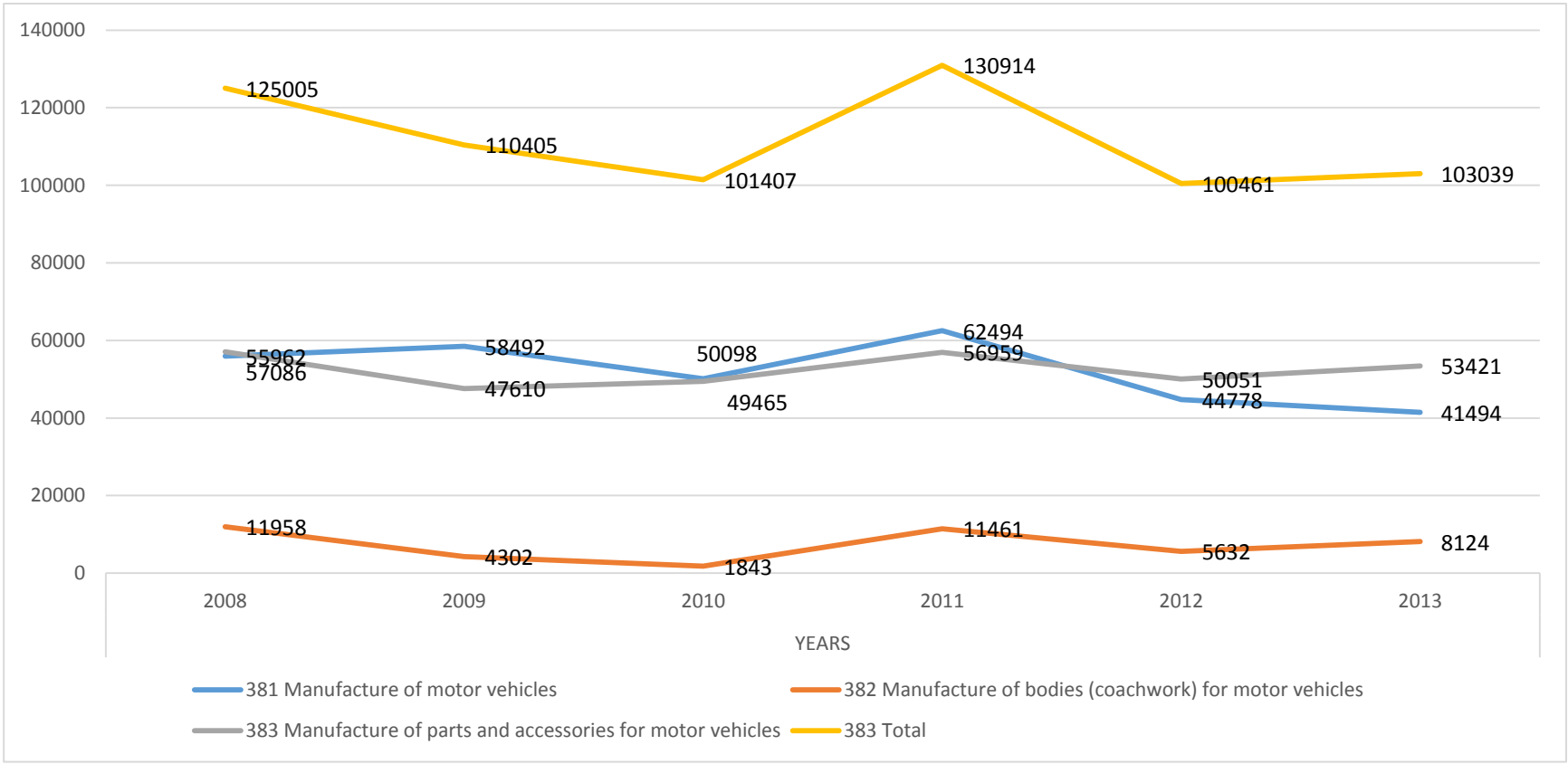
*Methodology: Case study (*Combination of primary and secondary research)

- Literature reviews
- Artisanal skills demand and supply analysis
- Individual interviews
- Thematic analysis of primary data
- Attempt at populating a model to map the artisanal occupational milieus and labour markets at a specific point in time.



MECHATRONICS IN THE AUTOMOTIVE SECTOR

A sector in decline



Total employment in the automotive sector, 2008 – 2013

Source: Statistics SA: LFS: 2008 and QLFS: 2009, 2010, 2011, 2012, and 2013

Growth in employment share for lower level occupational groups

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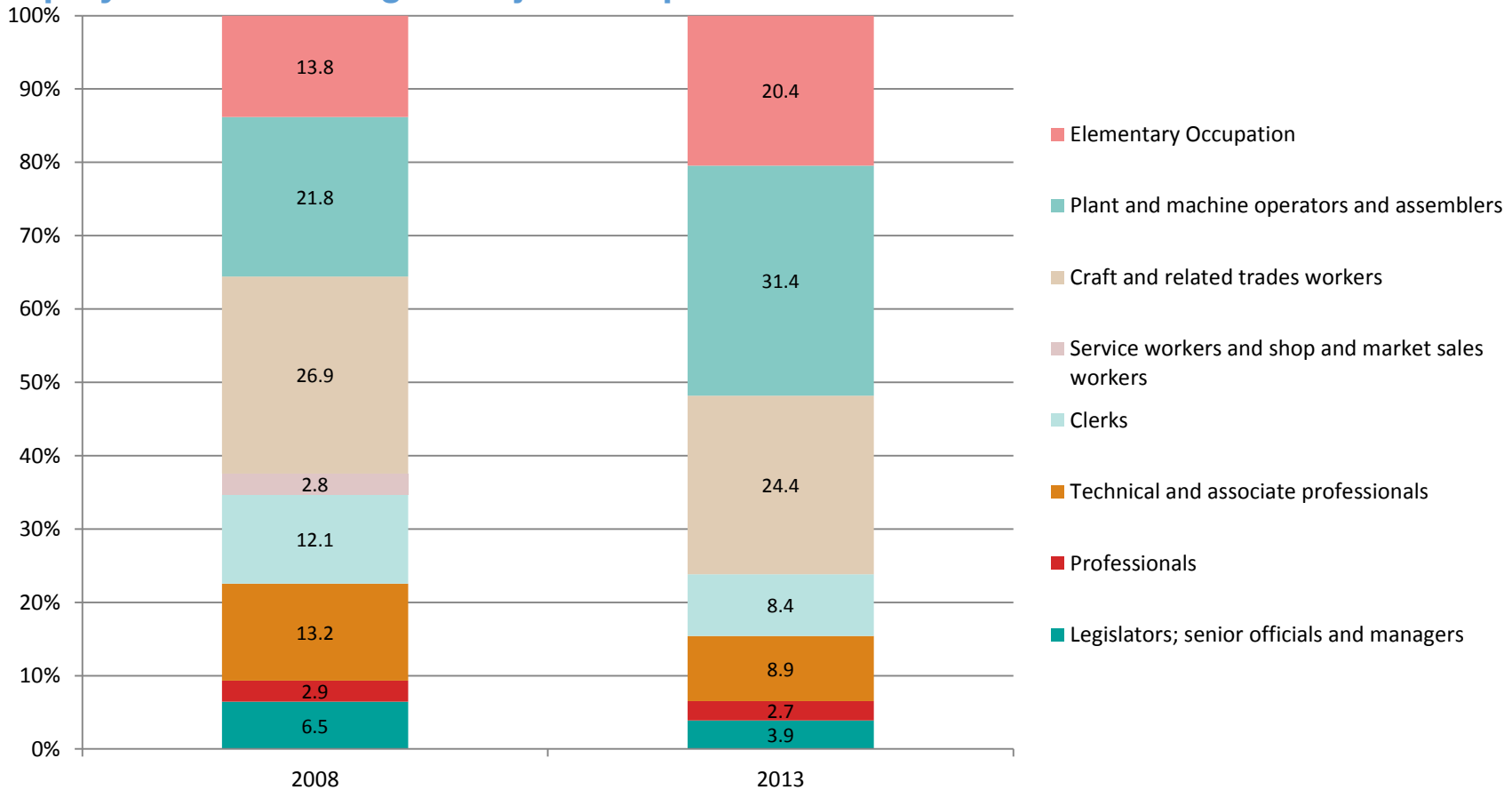
Employment according to major occupations in the automotive sector



Source: Statistics SA: LFS: 2008 and QLFS: 2009, 2010, 2011, 2012, and 2013

Increasing employment of mechatronics trades workers

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Employment of mechatronics trades workers according to main economic sectors

Main economic sectors	Years						Avg. annual growth rate 2008-2013 (%)
	2008	2009	2010	2011	2012	2013	
Agriculture; hunting; forestry and fishing	666	6332			1436		
Mining and quarrying	4879	6325	6360	6596	9382	12527	17.0
Manufacturing	8943	34258	30567	48372	33961	24947	18.6
Electricity; gas and water supply	427	1320	768	1578	4405		59.5
Construction	1244	3696	3304	3917	1163	5246	27.1
Wholesale and retail trade	3209	6533	7012	2998	3480	6151	11.5
Transport; storage and communication	1692	3615	6157	3385	1597		-1.0
Financial intermediation; insurance; real estate and business	2752	4268	10994	11623	9003	10863	25.7
Community; social and personal services		1665	2298	294	1346	575	-19.2
Total	23812	68012	61303	81535	67561	61906	17.3

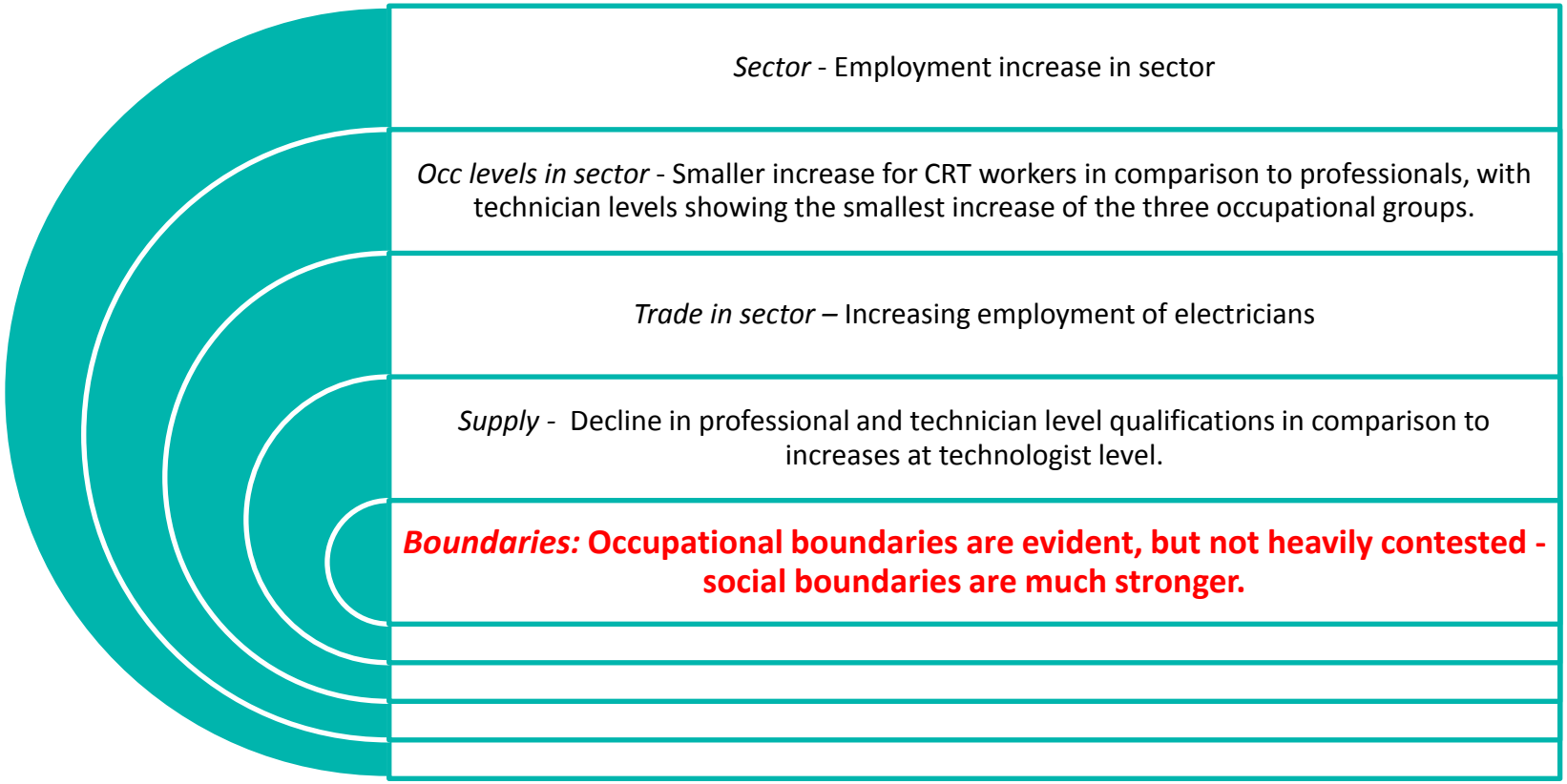
Source: Statistics SA: LFS: 2008 and QLFS: 2009, 2010, 2011, 2012, and 2013

Increasing output of individuals with mechatronics qualifications (Beng, Btech and ND)

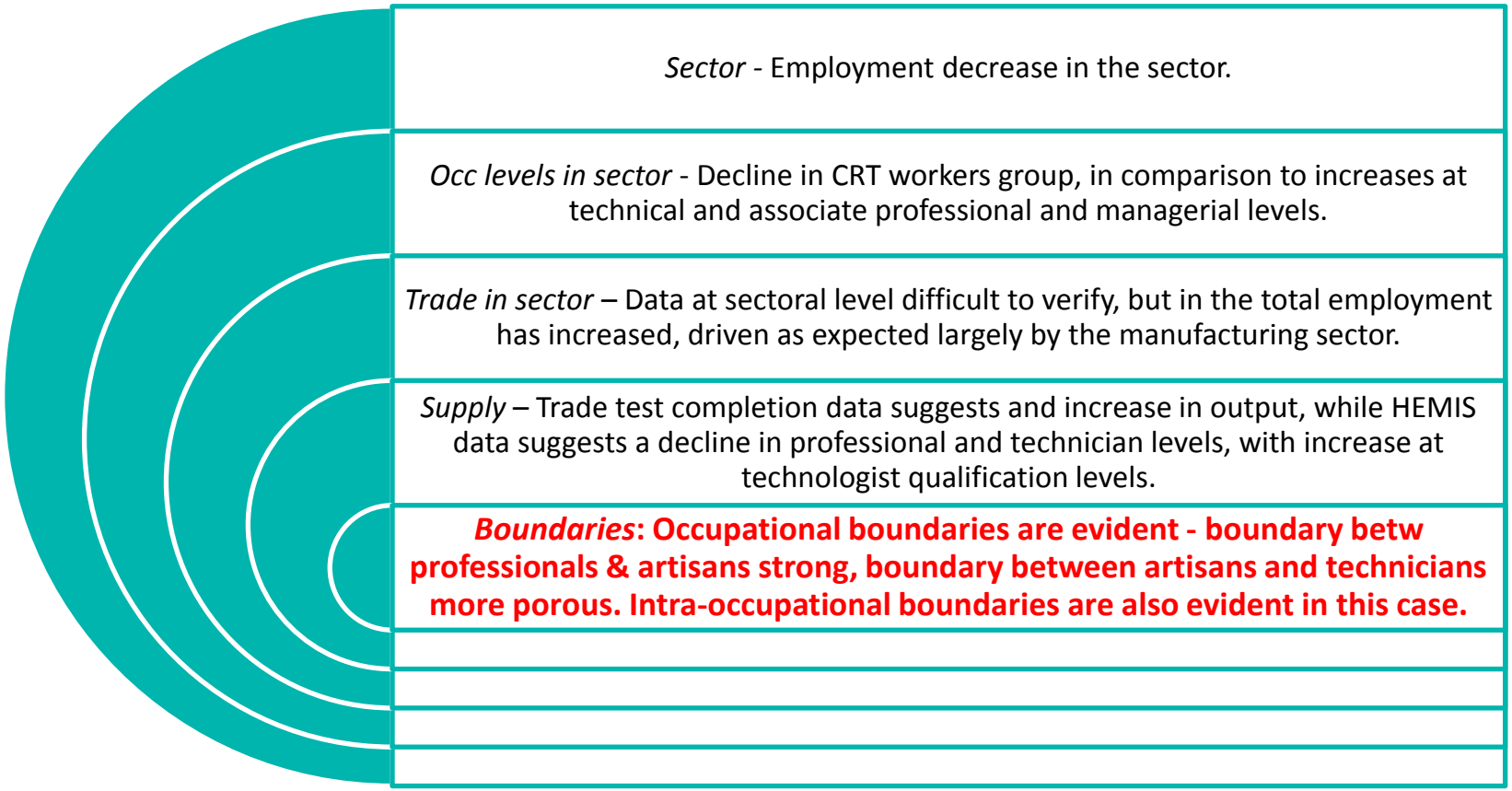
Supply: B. Engineering, B. Technology and National Diploma output in the Mechatronics Engineering field of study

CESM	Description	Years					% Average annual growth rate 2008 - 2012
		2008	2009	2010	2011	2012	
Engineers: B.Engineering output							
81501	Mechanical Engineering	462	531	368	515	469	0.3
81502	Mechatronic Engineering			57	115	144	_
81599	Mechanical and Mechatronic Engineering, Other			50	26	35	_
	TOTAL: Mechanical and Mechatronic Engineering	462	531	475	656	648	7.0
	% of all B.Engineering qualifications	19.3	20.6	22.2	28.3	26.8	
Technologists: B.Technology output							
81501	Mechanical Engineering	154	225	286	299	380	19.8
81502	Mechatronic Engineering			15	15	12	_
	TOTAL: Mechanical and Mechatronic Engineering	154	225	301	314	392	20.5
	% of all B.Technology Engineering qualifications	12.9	15.1	14.2	14.8	15.6	
Technicians: National Diploma output							
81501	Mechanical Engineering	613	649	458	569	644	1.0
81502	Mechatronic Engineering			47	51	82	_
81599	Mechanical and Mechatronic Engineering, Other		10	72	95	68	_
	Total: Mechanical and Mechatronic Engineering	613	659	577	715	794	5.3
	% of all National Diploma Engineering qualifications	14.8	15.6	12.9	15.4	16.4	

Source: HEMIS: 2008, 2009, 2010, 2011 and 2012



ELECTRICIANS IN THE MINING SECTOR



MILLWRIGHTS IN THE METALS SECTOR

Three empirical cases and their occupational boundaries

Mechatronics in automotive

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Occupational boundaries are evident, but **most strongly contested between technicians and artisans** and not artisans and professionals.

- Betw profs and art:
  - *"artisans, if they see that this can be done differently, then the options are discussed and decisions made about which is the better one [but] most of the time the artisan gets defeated on that because the engineer will end up convincing everybody… the artisan physically goes and does what the engineer wants" (Team Leader).*
- Betw tech and art:
  - Higher level artisans needed: *"years ago an artisan was 20/80 – twenty percent theory and eighty percent practical … right now I do believe that in order to be successful in your field or in the automation field it needs to be like a 50/50 – and even sixty percent theoretical".*
  - Should be recognised at technician level: *"companies are going to be forced to recognise these people at a higher level because of what they are going to be able to do – they are definitely not an artisan anymore. And that's why we changed our entry requirements and made it to a higher level just to make sure that we got people who … are analytical thinkers".*

Electricians in the mining sector

Occupational boundaries are evident, but not very strong and not heavily contested – the nature of the sector means that social boundaries are much stronger.

- *"Racism, it will always be there in the Mines. There's lots and lots of white people so, somewhere, somehow, yeah, they won't treat you nicely, but we strive to work hard because we knew what we wanted to achieve at the end of the day"*
- *"Oh yeah, I will say there's a difference but in my case it was different. You know, I'm actually from the Free State. I'm so, yeah; I grew up with white people. I can speak Afrikaans. I know how they are so I'm used to them"*

Millwrights in the metals sector

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Occupational boundaries are evident. Boundary between professionals and artisans are strong, while boundary between artisans and technicians appear more porous. **Intra-occupational boundaries** are also evident in this case.

- *Betw art and profs:*
  - *"…it's a matter of one saying, hey remember I'm better than you, I've got a certain level of education that help me make decisions and the other guys is saying, hey! I'm the one who is doing this job, I know what is really is involved here in the actual job. You never did the job, you just calculated the risk".*
  - *"If an engineer told me this, then I don't have any other say, I have to go and, and if that fails then I have to put a blame on the (engineer) because … he knows better I do"*
- *Betw techs and art:*
  - *technicians are more theoretical, where artisans are more practical. For instance if I'm an artisan and I'm thinking of fixing something, if I think of it now and how would it work for us now, they want you to prove it: to talk about it… You have to put it now theoretically while you are thinking practically that so that's where it becomes hard….*
- *Intra-occupational boundaries tend to emerge where different artisans have to work together:*
  - *"Our artisans' only work on the valves, the switches, the cameras and that kind of stuff. The millwrights don't even touch that stuff. If something is broken they call the artisans and the artisans will come out and fix it. If the artisans can't handle it, then we have to come out. .. The main thing about millwright is (that they are) always on the plant. So the first dispatch will always be a millwright. It will never be a technician, it's always them. Then the millwright has to make the call, this is the artisan equipment or this is the technician equipment"*

Highlights issues of import for skills planning

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- Alignment between our LFS categorisation – do artisans belong in CRT or technicians?
- How to develop and standardise and whether to extend to other trades in the future?
- Can/should we do studies at the level of trade?