



# Knowledge to innovation: what can we learn from university-firm interaction in Sub-Saharan Africa?

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Social science that makes a difference



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Human Sciences  
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# Appropriating research, policy and practice in sSA universities

- National systems of innovation approach (Lundvall, Nelson, Globelics network): institutions, interaction, and capabilities
- Strong aspiration to promote S&T, innovation, university-industry interaction, commitment to contribute to knowledge-based development
- Tendency to adopt policies, structures and incentives promoted in developed countries uncritically
- Insufficient systematic research – or reflection on how adapt in specific conditions in middle and low income countries
- Little precedent for understanding knowledge to innovation in low income countries and regions in the research literature, only an emerging literature on middle income countries

# Innovation research: country focus

	LIC	%	Lower MIC	%	Upper MIC	%	HIC	%	Total
<b>Research Policy</b>	1	.3	39	11.9	28	8.6	259	79.20	327
<b>Industrial and Corporate Change</b>	1	1.5	2	2.9	7	10.1	59	85.5	69
<b>R&amp;D Management</b>	1	2.4	7	17.1	0	.00	33	80.5	41
<b>Journal of Evolutionary Economics</b>	2	4.8	2	4.8	0	.00	38	90.5	42
<b>Technovation</b>	32	8.7	62	16.7	34	9.2	242	65.4	370
<b>Total</b>	<b>37</b>	<b>4.4</b>	<b>112</b>	<b>13.2</b>	<b>69</b>	<b>8.1</b>	<b>631</b>	<b>74.3</b>	<b>849</b>

# University-firm interaction in Uganda and Nigeria as low income countries

- Firms tend to be small or medium sized
- Low levels of innovation, incremental improvement
- Very low levels of R&D / investment
- Universities least important source of information, main sources are firm's own manufacturing operations, customers and competitors
- Channels of interaction are informal, indirect and widely available publicly, not knowledge intensive
- Negative perception of universities – 'big science' quality, don't understand firms' business

# University-firm interaction in South Africa as a middle income country

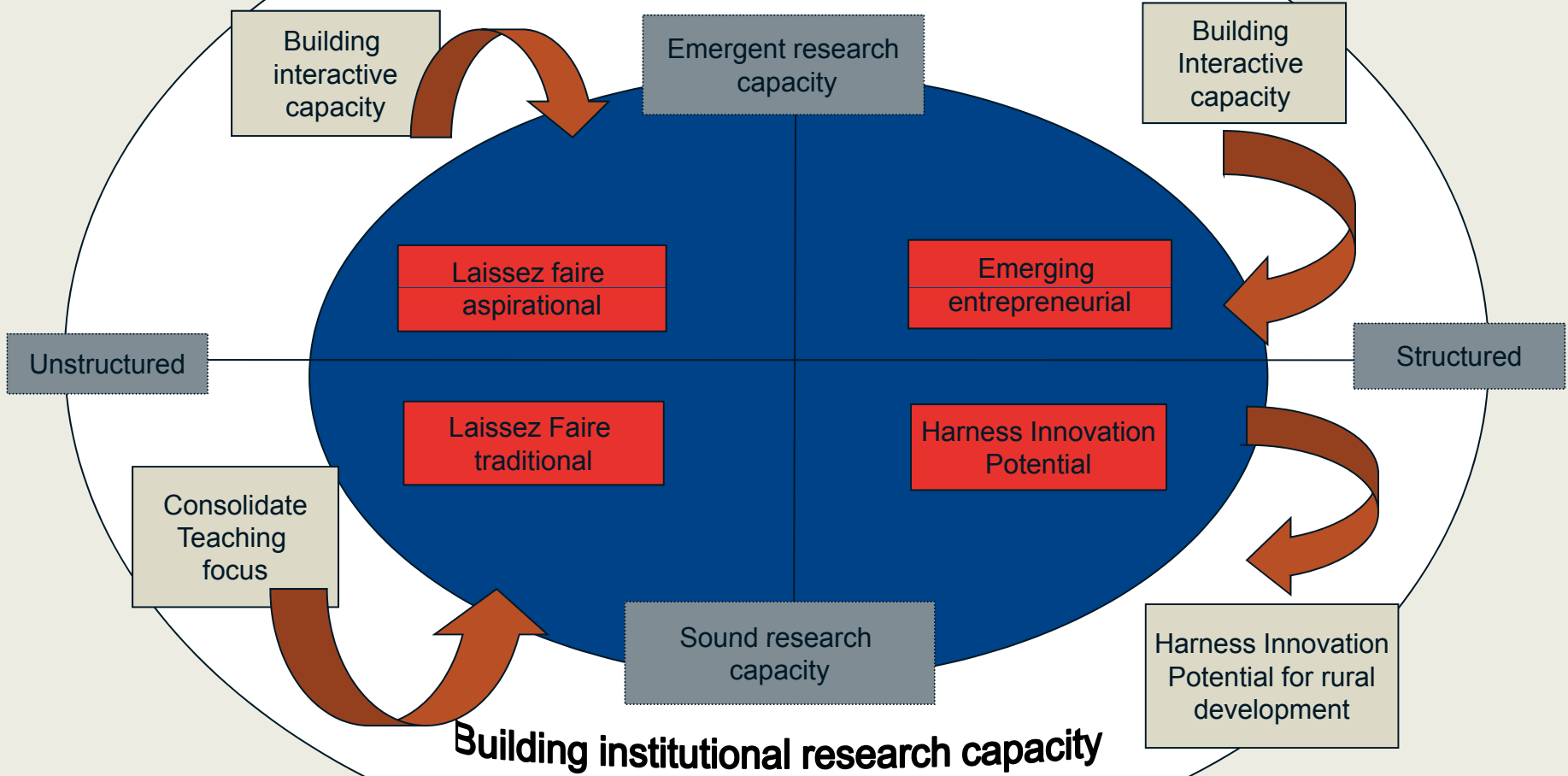
**Innovating firms** that cooperate with universities tend to be:

- Larger (employee size and turnover)
- Higher innovation expenditure, spend more on R&D
- Higher levels of technological intensity
- Engage in more knowledge-intensive innovation activities
- Rely on external sources to complement internal R&D
- Value knowledge-related sources
- Strong sectoral differences

**Scale of cooperation** very small and not widely diffused – ‘islands’ of innovation networks

Wide range of formal **channels of interaction** – consultancies, contracts, collaboration, networks, spin-offs

**Building institutional research capacity**



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# Knowledge to innovation: university-firm interaction in SSA

Critical to engage with the large body of research about university-firm interaction in developed and other developing contexts, and engage with the contemporary set of models and best practices, in a more appropriate way informed by understanding of what is distinctive about our contexts – continentally, nationally, regionally, institutionally – to extend the research literature