

The twentieth century....



 $Source\ picture; http://oneinabillionblog.com/economics-2/economy/example-economy-over-consumptions and the picture of the p$



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Current insights...

...tend to be based on research on large corporate firms, with a focus on the business case of responsible behavior



Objections:

- Relevance of SMEs: 60% to 70% of total pollution is being produced by SMEs!
- Call from policy makers on SMEs to lower their impact on the environment (European Commission, 2010)
- Uniqueness of SMEs: Motivation not identical for large and small firms
- 4. Interplay between SME's and large corporates not addressed
- 5. Are we asking the right question? From why to what



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Relevance of focus on SME's

Why address environmental issues?

Uniqueness of SME's

- Governmental regulations and control
- Stakeholder action / activism
- Ethical motivation
- Competitive advantage

competitive davantage

- Size and visibility
- Management and ownership combined
- Motivation of owner
- Strategy more flexible

Source: Storey and Greene (2010)





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Relevance of focus on SME's

Interplay between SME's and large corporates

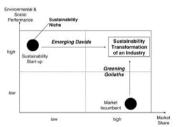


Fig. 2. Co-evolution of sustainability start-ups and market incumbents towards the sustainability transformation of an industrial



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Source: Hockert and Wustenhagen (2010)

Are we asking the right questions?

From a focus on the business case of responsible behavior to environmental practices (with a focus on SME's)





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SMEs and environmental practices

Environmental practices

"Activities undertaken by firms aimed at reducing the impact of their operations and their products and services on the environment". (Gadenna et al, 2009)

SMEs possess characteristics that foster engagement

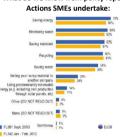




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SMEs and environmental practices

What do we know from policy reports?





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Source: European Commission (2014)

SMEs and environmental practices

What do we know from policy reports?
Actions SMEs undertake:

	Saving energy	Minimising waste	Saving materials	Saving water	Recycling, by reusing material or waste within the company	Selling your scrap material to another company	Using predominantly renewable energy (e.g. including own production through solar panels, etc.)		Many actions
■ EU28	67%	67%	69%	51%	61%	29%	16%	63%	35%
₽ UK	79%	94%	71%	63%	83%	42%	18%	100%	55%
) IE	62%	77%	46%	43%	81%	30%	24%	99%	37%
● HR	64%	54%	44%	39%	39%	28%	7%	99%	10%
ES ES	91%	85%	91%	78%	78%	34%	13%	98%	64%
BE	68%	79%	82%	59%	43%	32%	21%	97%	36%
OZ.	75%	78%	66%	56%	49%	36%	10%	96%	38%
PT PT	90%	73%	85%	77%	78%	33%	9%	96%	60%
DE	74%	88%	81%	53%	57%	40%	30%	95%	42%
AT	80%	75%	63%	56%	60%	24%	34%	95%	45%
LU	69%	70%	61%	49%	52%	24%	9%	94%	32%
HU	71%	46%	53%	62%	20%	24%	7%	94%	17%
NL	67%	86%	85% (27%	55%	28%	(30%)	93%	32%



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Source: European Commission (20

,	What do we know fron Do SMEs offer green proc	

SMEs and environmental practices What do we know from policy reports? Main reasons to engage in environmental activities? 75% 28% 17% 39% 17% 14% 9% 6% Other (DO NOT READ OUT) 3% None (DO NOT READ OUT) 3% Don't know 11% ● EU28 ERASMUS SCHOOL OF **ECONOMICS**

What drives environmental practices of SME's?

- Are small firms indeed reluctant to invest in environmental
- Do these drivers differ across types of environmental practices?

Types of environmental practices

Greening processes:

extent to which SMEs invest in resources efficient activities (% of annual turnover)

Greening product and service offerings:

extent to which green products and services are represented in SME's annual turnover



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Source: Hoogendoorn, Guerra, Van der Zwan (20)

What drives e	nvironmen	tal nrac	rtices (of SME's
 Are small firm 	ns indeed relucta	_		
practices? Do these driv	vers differ across t	types of en	vironmenta	al practices?
 Large scale has countries) 	y, multi-sector armonized data (8			
efficiency and Factors taken	12 (Flash Euroban d green markets" i into account: firn ets served, externa al legislation	no. 342) n size, tangi	bility of fire	m's business
ERASMUS SCHOOL OF ECONO	OMICS	Sou	rce: Hoogendoorn, 1	Guerra, Van der Zwan (
What drives e	nvironmen	tal prac	ctices (of SME's
Are small firm practices?	ns indeed relucta	nt to invest	in environ	mental
	ers differ across t	types of en	vironmenta	al practices?
Driver	Proc		Products an	
Firm size	Hyp +	Finding +	Нур	Finding n.s. / +
Sector tangibility	+	+	+	+
Market served (B2B – B2C		n.s.	-	-
Receiving external support Financial support	+	.+	+	.+.
 Non-financial support Environmental legislation 	+	n.s.	+	n.s +
		11.0.		
Control variables: firm age,	, EMS in place, compli	ance		
ERASMUS SCHOOL OF ECONO	OMICS	Sour	rce: Hoogendoorn,	Guerra, Van der Zwan (
What drives e	nvironmen	tal prac	ctices (of SME's
Are small firms ind				
Do these drivers di				-
Different condition engagement. In par	rticular for:	gement in t	types of en	vironmental
	rkets being serve	d		
the stri	ingency of enviror	nmental leg	islation	
The influences of exactors both types of	xternal support ar of environmental p		ngibility do	not differ

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Little attention is being paid in academic literature to environmental practices of SMEs, this is remarkable.

The majority of SMEs (91 %) are involved in greening processes to some extent, whereas nearly one-third of SMEs (29 %) offer green products and services.

The dominant idea that small firms are reluctant to invest in environmental practices because they perceive this as an additional burden is more

Different conditions exist under which SMEs engage in both types of environmental practices most evidently for firm size, the market being served, and the stringency of environmental legislation.

The influences of external support and sector tangibility do not differ across both types of environmental practices.



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References

- Bansal, P., & Hoffman, A. J. (2012). The Oxford handbook of business and the natural environment. Oxford: Oxford University Press.

- Leavast, P., a nummen, A. J. (2012). The Oxford handbook of business and the natural environment. Oxford: Oxford University Press.

 European Commission. (2010). SMEs and the Environment in the European Union. Luxembourg: Publications Office of the European Union.

 European Commission (2014). SMEs, resource efficiency and Green markets Flash Eurobarometer 381 TNS Political & Social.

 Gadenne, D. L., Kennedy, J., & McKeiver, C. (2009). An empirical study of environmental awareness and practices in SMEs, Journal of Business Ethics, 84(1), 45–63.

 Hookerts, K. & Wustenhagen, R. (2010). Greening Gollaths versus emerging Davids—Theorizing about the role of incumbents and new entrains in sustainable enterpreneurship. Journal of Business Venturing, 25(5), 481–492.

 Hoogendoorn, B. (2015). Green Entrepreneurs, In Van Stel, A (Ed). Types and roles of Entrepreneurship. The value of different types of entrepreneurs for the Dutch economy and society, H201418. Pantisie/EMI: Zostermeer, The Netherlands
- of otherferit types of entrepreneurs for the Dutton economy and society, P.20/14.9. ratineals: bit. Zeeterfmeer, The Netherlands. Bit. Seaterfmeer, The Netherlands. Bit. Seaterfmeer, The Business Economics, 44(4), 759-781.

 Storey, D.J. and and Greene, F.J. (2010). Small Business and Entrepreneurship. Pearson Education: Harlow, UK. Van Marrewijk, M. (2003). Concepts and definitions of CSR and corporate sustainability: Between agency and communion. Journal of Business Ethics, 44(2–3), 95-105.

 York, J. G., & Verdkatarraman, S. (2010). The entrepreneur environment nexus: Uncertainty, innovation, and allocation. Journal of Business Venturing, 25(5), 449-463.



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