

Investments in Resource Efficiency

WHEB Partners

January 2014



WHEB

CONFIDENTIAL

Important notice

This Presentation, its contents and any related communication (altogether the "Presentation"): (1) does not constitute or form part of any offer to sell or an invitation to subscribe for, hold or purchase any interest(s) ("Interests") in the proposed fund ("Fund"); (2) shall not form the basis of or be relied on in connection with any contract or commitment; (3) is provided for information purposes only for the recipient to consider the viability of a potential purchase of Interests and is not intended to form, and should not form, the basis of any investment decision; (4) does not contain and should not be treated as if it contains advice, including without limitation investment, legal and/or taxation advice; (5) is subject to the copyright of WHEB Capital Partners LLP ("WCP") and may not be reproduced, transmitted, stored in a retrieval system or translated without the prior written consent of WCP; (6) is confidential and may not without the prior written consent of WCP be disclosed to any third party except to your professional advisers that are subject to confidentiality obligations relating to that information under contract or rules of professional conduct; (7) is in summary form and may refer to and may be materially affected by future events which may or may not happen and/or be within the control of WCP, and although WCP has exercised reasonable care in its preparation, no representation or warranty, express or implied, is made as to the accuracy, reliability or completeness of the Presentation, including any forecast or forward looking statement or its or their underlying assumptions, or as to whether such a future event may occur, by WCP, its group companies and its or their directors, officers, employees, associates and agents (altogether, "WCP Persons"); (8) has not been independently verified by WCP; (9) is subject to change at any time and WCP is under no obligation to inform any person of any such change; (10) in the UK, is not being distributed to and must not be passed on to the general public, and may only be distributed to persons who fall within Article 14 (Professional Investors), 21 (Certified high net worth individuals), 22 (High net worth companies, unincorporated associations), 23 (Sophisticated Investors), 23A (Self-certified sophisticated investors), and/or 24 (Associations of high net worth or sophisticated investors) of the Financial Services and Markets Act 2000 (Promotion of Collective Investment Schemes)(Exemptions) Order 2001 (the "Order"), persons who fall within the exemptions at rule 14.12.1 of the Conduct of Business Sourcebook of the FSA Handbook, or persons to whom it may otherwise lawfully be communicated (altogether, "Relevant Persons"), is directed only at Relevant Persons and must not be acted on or relied on by persons who are not Relevant Persons; (11) in any state is distributed only to, and directed only at, persons who are lawfully entitled to receive this Presentation in accordance with applicable laws, regulations and rules and binding guidance of regulatory authorities; and (12) save as is set out at (10) to (11) above, is distributed only to and directed only at persons who are not capable of classification as Retail Clients (as defined in the Markets in Financial Instruments Directive 2004/39/EC) or equivalent applicable local regulatory classification.

To the fullest extent permitted by applicable law, regulation and rule of regulatory body, WCP Persons accept no responsibility for and shall have no liability for any loss in relation to this Presentation, however arising including without limitation direct, indirect, consequential or loss of profit. If you do not have professional experience in participating in unregulated schemes you should not rely on this Presentation. This communication is exempt from the scheme promotion restriction in section 238 of the Financial Services and Markets Act 2000 on the communication of invitations or inducements to participate in unregulated schemes where is made to a certified sophisticated investor or self-certified sophisticated investor. If you are in any doubt about investing in the Fund you should consult an authorised person specialising in advising on investing in venture capital and/or private equity funds.

US Securities Law

Interests have not been, and will not be, registered with or approved or disapproved by the US Securities and Exchange Commission, any securities regulatory authority of any US state, or any other governmental or self-regulatory agency. No such commission, authority or other agency has passed on the accuracy or adequacy of this Presentation. Any representation to the contrary is a criminal offence.

Reliance on this promotion for the purpose of investing in the Fund may expose an individual to a significant risk of losing all assets invested.

Important notice (continued)

Interests have not been and will not be registered under the US Securities Act of 1933, as amended (the "Securities Act"), or any US state securities laws or the laws of any non-US jurisdiction. Interests may be offered and sold under the exemption provided by Section 4(2) of the Securities Act and Regulation D promulgated thereunder and other exemptions of similar import in the laws of the US states.

The Fund will not be registered as an investment company under the Investment Company Act of 1940 (the "Investment Company Act"). Consequently, the holder of any Interests will not be afforded the protections of the Investment Company Act. Interests are being offered and sold outside the United States to non-US persons in reliance on Regulation S under the Securities Act and within the United States only to "accredited investors" in private transactions exempt from the registration requirements of the Securities Act. Each US person that receives this Presentation and purchases an Interest must be an "accredited investor" for purposes of the Securities Act and a "qualified purchaser" for the purpose of the Investment Company Act. The Interests are subject to limitations on transfer as set forth in the limited partnership agreement governing the Fund. In addition, Interests may not be sold or transferred except as permitted under the Securities Act and applicable US state securities laws, pursuant to registration thereunder or exemption therefrom.

There is no public market for Interests and no such market is expected to develop in future. Prospective investors should be aware that they will be required to bear the financial risks of their investment for an indefinite period. An investment in the Fund is suitable only for sophisticated investors and requires the financial ability and willingness to accept the high risks and lack of liquidity inherent in a speculative investment such as investment in the Fund. No assurance can be given that the Fund's investment objective will be achieved or that investors will receive a return on their capital. An investment in the Fund should therefore be regarded as long-term and should form only part of an otherwise diversified portfolio. No one should invest who cannot afford to lose his entire investment.

US Treasury Department Circular 230 Notice

To ensure compliance with the United States Treasury Department Circular 230, prospective investors are hereby notified that: (i) any discussion in this Presentation related to United States federal tax issues was not intended or written to be used, and may not be used, by any taxpayer for the purpose of avoiding any United States Federal tax penalties that may be imposed on such taxpayer; (ii) any such discussion related to initial consideration of whether to purchase Interests; and (iii) each taxpayer should seek advice regarding a purchase of Interests based upon the taxpayer's particular circumstances from an independent tax adviser. The foregoing language is intended to satisfy the requirements under the regulations in section 10.35 of the Treasury Department Circular 230. By opening this Presentation (if sent in electronic form) or by not identifying yourself and leaving this Presentation (if conducted in person) you agree to and acknowledge the above.

"WHEB Partners" is the trading name of WHEB Capital Partners LLP and WHEB Partners Limited. WHEB Capital Partners LLP's registered office is at 2 Fitzhardinge Street, London W1H 6EE and it is registered in England and Wales with number OC331086. WHEB Capital Partners LLP is authorised and regulated by the Financial Services Authority with number 474136. WHEB Partners Limited's registered office is at 2 Fitzhardinge Street, London W1H 6EE and it is registered in England and Wales with number 06755267. WHEB Partners Limited is authorised and regulated by the Financial Services Authority as an appointed representative of WHEB Capital Partners LLP with number 496329.

An introduction to WHEB Partners

Team: London and Munich

- Six investment professionals with experience in sustainability, energy and resource efficiency and blue chip private equity experience including growth capital
- Partners have a wide range of industrial, operational and technical backgrounds. Have advised governments on public policy, including in UK, Germany and the European Union

Fund Size

- €150 million (£129 million) of LP commitments to two funds:
 - Fund 1 (2004 vintage) – “WHEB Ventures”: €28 million (£24 million); invested in 8 companies and closed for new deals. Investors include family offices and institutions such as Macquarie
 - Fund 2 (2008 vintage) – “Green Growth Fund 1”: €122 million (£105.4 million); invested in 12 companies to date. Investors include the European Investment Fund and Hermes GPE.
 - Fund 3 (2014 vintage) – “Green Growth Fund 2”: €200 million target

WHEB European Green Growth Fund 2

- Same energy and resource efficiency investment strategy as Green Growth Fund 1
- Slightly more diversification than Green Growth Fund 1 and greater average deal size

Resource efficiency cuts across multiple sectors

Energy Generation	Energy Efficiency and Storage	Industrial Processes	Waste	Water
<ul style="list-style-type: none"> ▪ Biomass ▪ Combined Heat & Power ▪ Fuel Cells ▪ Geothermal ▪ Solar ▪ Wind 	<ul style="list-style-type: none"> ▪ Batteries ▪ Electric transport ▪ Energy distribution and smart grid ▪ Demand response ▪ Green buildings ▪ Green IT 	<ul style="list-style-type: none"> ▪ Cleaner chemicals ▪ Green industrial efficiency ▪ Smarter materials ▪ Sustainable agriculture ▪ Other processes (e.g. advanced manufacturing) 	<ul style="list-style-type: none"> ▪ Recycling ▪ Treatment ▪ Waste to energy 	<ul style="list-style-type: none"> ▪ Desalination ▪ Monitoring, management and control ▪ Treatment (disinfection, filtration) ▪ Usage efficiency (irrigation and conservation)

Personal experience



Dr Alexander Domin – Partner (Munich)

- Joined WHEB Partners in 2009
- Chemical Engineer with PhD from Cambridge University, BSc and MSc from Stanford University
- 5 years experience as R&D scientist in Silicon Valley and Germany
- 3 years as strategy consultant for BCG (The Boston Consulting Group)
- 5 years experience at WHEB

- 2 years as co-founder and director of a venture funded start-up for packaging recycling

Commodity prices are not sustainable

GMO Commodity Index: The Great Paradigm Shift



Note: The GMO commodity index is an index comprised of the following 33 commodities, equally weighted at initiation: aluminum, coal, coconut oil, coffee, copper, corn, cotton, diammonium phosphate, flaxseed, gold, iron ore, jute, lard, lead, natural gas, nickel, oil, palladium, palm oil, pepper, platinum, plywood, rubber, silver, sorghum, soybeans, sugar, tin, tobacco, uranium, wheat, wool, zinc.

Source: GMO As of 2/28/11

Personal experience: Enval Ltd.



The situation

- Over 800,000 tons of laminated packaging were being sent to landfill, in the UK alone, at increasingly high costs to waste handlers
- It takes approximately 95% less energy to produce secondary aluminium, via recycling operations, than is otherwise consumed when producing primary aluminium from bauxite.
- Waste plastic can be turned into fuel if in suitably pure form

Personal experience: Enval Ltd.



The Enval triple value proposition

- Low fees for waste handling (much lower than landfill fees)
- Impurity free aluminium
- Energy from plastic components

Personal experience: Enval Ltd.

Rapid (?) progress

- Business plan won Cambridge business plan competitions
- Angel funding secured
- Demonstration plant built
- Venture funding secured
- Pre-commercial plant built
- Further venture funding secured
- Commercial plant built
- All this took...

Personal experience: Enval Ltd.

Rapid (?) progress

- Business plan won Cambridge business plan competitions
- Angel funding secured
- Demonstration plant built
- Venture funding secured
- Pre-commercial plant built
- Further venture funding secured
- Commercial plant built
- All this took **10 years**

WHEB's experience: Aquaspy

Studies show a clear investment case for solutions to water scarcity in agriculture:



Water

- More than 4 billion people are now living in water-stressed (defined as less than 1700 cubic meters of water available per capita/year) and water-scarce (defined as less than 1000 cubic meters per capita per year) regions while water tables, soil moisture levels and water quality levels are declining rapidly in many dry-land areas,



Food

- Despite a significant increase in fertilizer use, the growth of crop yields per acre has declined from 3.5% in the 1960s to 1.2% in 2011. There is little new productive land to bring into cultivation and yet an increase of 60% to 100% in food production is required by 2050 to feed at least a modest sufficiency of calories to all 9 billion+ people.

Source: Resource Revolution: Meeting the world's energy, materials, food and water needs (McKinsey, November 2011); Time to wake up: Days of Abundant Resources and Falling Prices Are Over Forever (GMO LLC, April 2011) and Expect the Unexpected: Building business value in a changing world (28 February 2012).

WHEB's experience: Aquaspy



The situation

- Irrigation control using proprietary sensors, telemetry and software
- Clear market leader in Australian high precision agriculture market.
- Market potential and cost advantages of AquaSpy system for users

Development took a long time

- First investment at the end of 2005
- Company and its products were not ready for large rollout
- Drought in Australia actually depressed earnings due to customers' lack of liquidity
- Now products are cheap, effective and large partners are interested, nearly 9 years later



WHEB's experience: Aquaspy



The situation

- Irrigation control using proprietary sensors, telemetry and software
- Clear market leader in Australian high precision agriculture market.
- Market potential and cost advantages of AquaSpy system for users



Development took a long time

- First investment at the end of 2005
- Company and its products were not ready for large rollout
- Drought in Australia actually depressed earnings due to customers' lack of liquidity
- Now products are cheap, effective and large partners are interested, nearly 9 years later



1

First lesson: do not underestimate time to market of new technologies, even if they seem a „must have“

WHEB's experience: friedolaTECH

OVERVIEW | STRATEGY & VALUE CREATION | TEAM | FUND | INVESTMENT PROCESS & PIPELINE | MAIN TERMS & CONDITIONS | CONCLUSION

The situation

- IBM surveyed global changes in Truck buying criteria anticipated 2008 versus 2020 across the whole truck value chain through conducting primary research with purchasing managers. Top criteria that are expected to have increased importance:
 - Fuel Economy
 - Total Cost of Ownership
 - Eco-friendly
- Car companies expressed two main goals 5 years ago:
 - Increasing fuel economy through lightweighting
 - Greatly increase the amount of recycled / recyclable materials

Source: IBM Executive Report "Truck 2020 – transcending turbulence"

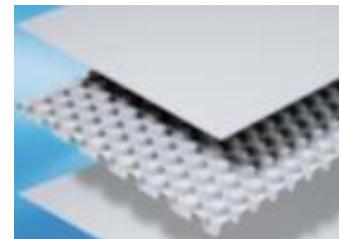
WHEB's experience: friedolaTECH

OVERVIEW | STRATEGY & VALUE CREATION | TEAM | FUND | INVESTMENT PROCESS & PIPELINE | MAIN TERMS & CONDITIONS | CONCLUSION



The Company

- friedola TECH supplies highly durable and lightweight patented plastic components, mainly for automotive applications (used by Daimler, VW, others), and lightweight and collapsible transport boxes for global logistics companies.
- Products are made from high-grade recycled materials (up to 100%) derived from friedola TECH's own plastic waste recycling facilities and are 100% recyclable



Example: Loading Floor

- Wooden loading floor A3: 57,8 kg
- CON-Pearl® loading floor A3: 23,3 kg
- weight saving A3 (60%): 34,5 kg
- Roll-out: extremely slow
- Premium paid for recycled content / recyclability = 0



WHEB's experience: friedolaTECH

OVERVIEW | STRATEGY & VALUE CREATION | TEAM | FUND | INVESTMENT PROCESS & PIPELINE | MAIN TERMS & CONDITIONS | CONCLUSION



The Company

- friedola TECH supplies highly durable and lightweight patented plastic components, mainly for automotive applications (used by Daimler, VW, others), and lightweight and collapsible transport boxes for global logistics companies.
- Products are made from high-grade recycled materials (up to 100%) derived from friedola TECH's own plastic waste recycling facilities and are 100% recyclable



Example: Loading Floor

- Wooden loading floor A3: 57,8 kg
- CON-Pearl® loading floor A3: 23,3 kg
- weight saving A3 (60%): 34,5 kg
- Roll-out: extremely slow
- Premium paid for recycled content / recyclability = 0



2

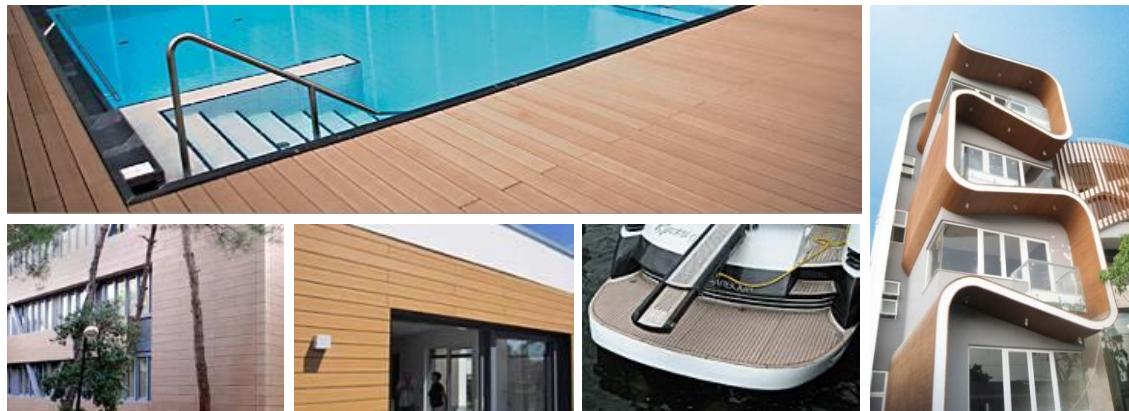
Second lesson: most customers will not pay more for „green“ products, and marketing is always ahead of sourcing

WHEB's experience: Resysta



The situation

- Green building market size in the US alone is expected to reach \$135 billion by 2015¹
- Resysta is a revolutionary new building material, which combines the high-end look and feel of tropical wood while exhibiting none of the drawbacks of wood and its plastic alternatives



Source: McGraw-Hill Construction's "Green Outlook 2011: Green Trends Driving Growth" report

WHEB's experience: Resysta

The issues

- Resysta has been selling decking products successfully, but:
 - small company with a novel products (lesson 1...)
 - the product is fairly expensive (lesson 2...)
 - high working capital and capex requirements, costly sales and marketing

The solution: adapt business model

- Resysta has changed from being a products manufacturer for end consumers to being a materials supplier to multinational chemicals companies
 - Large companies pushing a greater variety of Resysta products into their channels
 - Product has become cheaper thanks to customers' economies of scale
 - No more working capital, capex and sales issues

INEOS Compounds

Braskem

 POLYMER-CHEMIE

SIMONA
SIMOWOOD - Made of Resysta®

SALAMANDER®
DECKING, FENCE & FACADE
MADE OF

Resysta®

WHEB's experience: Resysta

The issues

- Resysta has been selling decking products successfully, but:
 - small company with a novel products (lesson 1...)
 - the product is fairly expensive (lesson 2...)
 - high working capital and capex requirements, costly sales and marketing

The solution: adapt business model

- Resysta has changed from being a products manufacturer for end consumers to being a materials supplier to multinational chemicals companies
 - Large companies pushing a greater variety of Resysta products into their channels
 - Product has become cheaper thanks to customers' economies of scale
 - No more working capital, capex and sales issues

INEOS Compounds

Braskem

SALAMANDER®
DECKING, FENCE & FAÇADE
MADE OF

 POLYMER-CHEMIE

SIMONA
SIMOWOOD - Made of Resysta®

Resysta®

3

Third lesson: ensure business model is scalable,
look beyond the obvious „green IT“

Summary of WHEB's lessons learned

1

Do not underestimate time to market of new technologies, even if they seem a „must have“

2

Most customers will not pay more for „green“ products, and marketing is always ahead of sourcing

3

Ensure business model is scalable, look beyond the obvious „green IT“

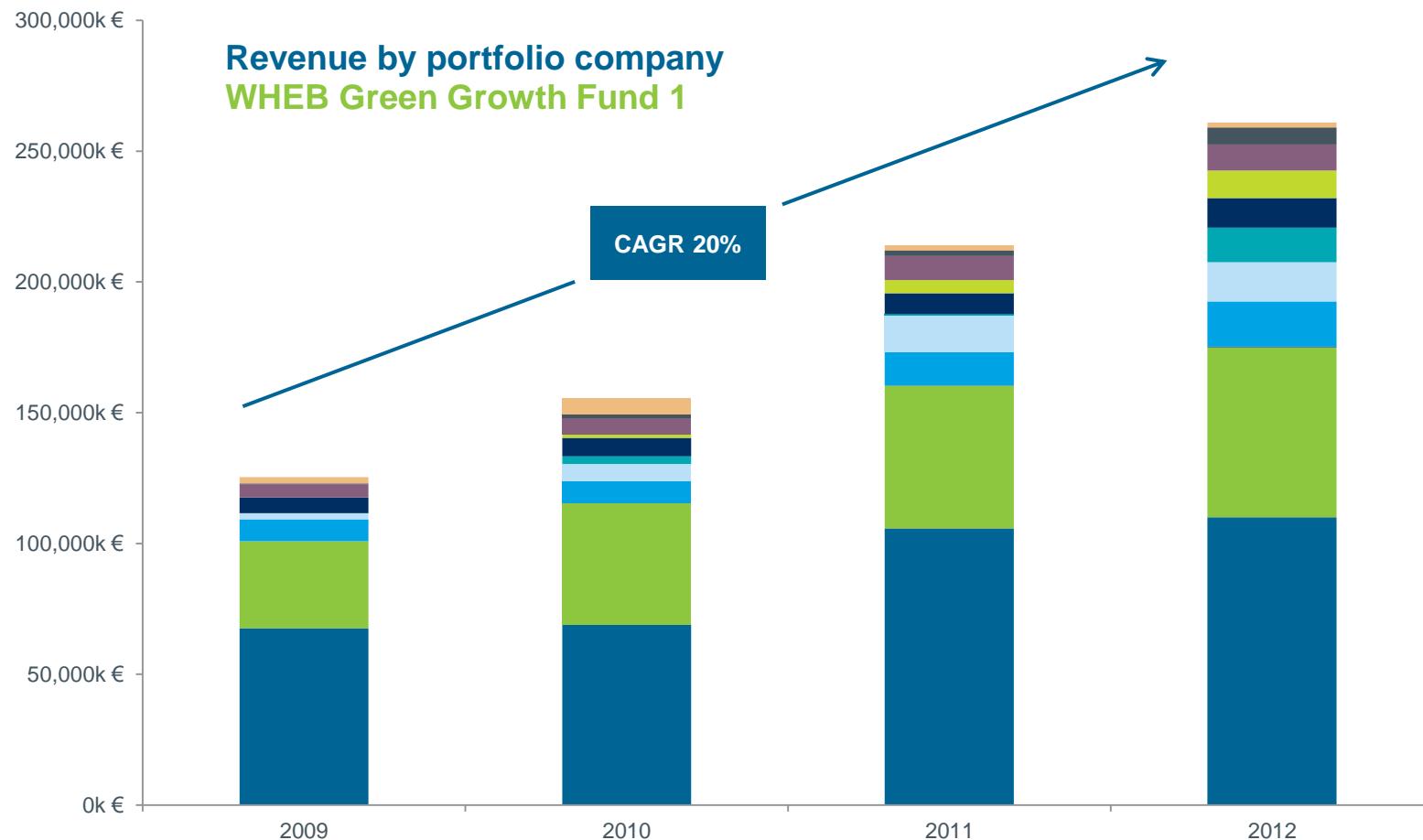
WHEB investment criteria

OVERVIEW | STRATEGY & VALUE CREATION | TEAM | FUND | INVESTMENT PROCESS & PIPELINE | MAIN TERMS & CONDITIONS | CONCLUSION

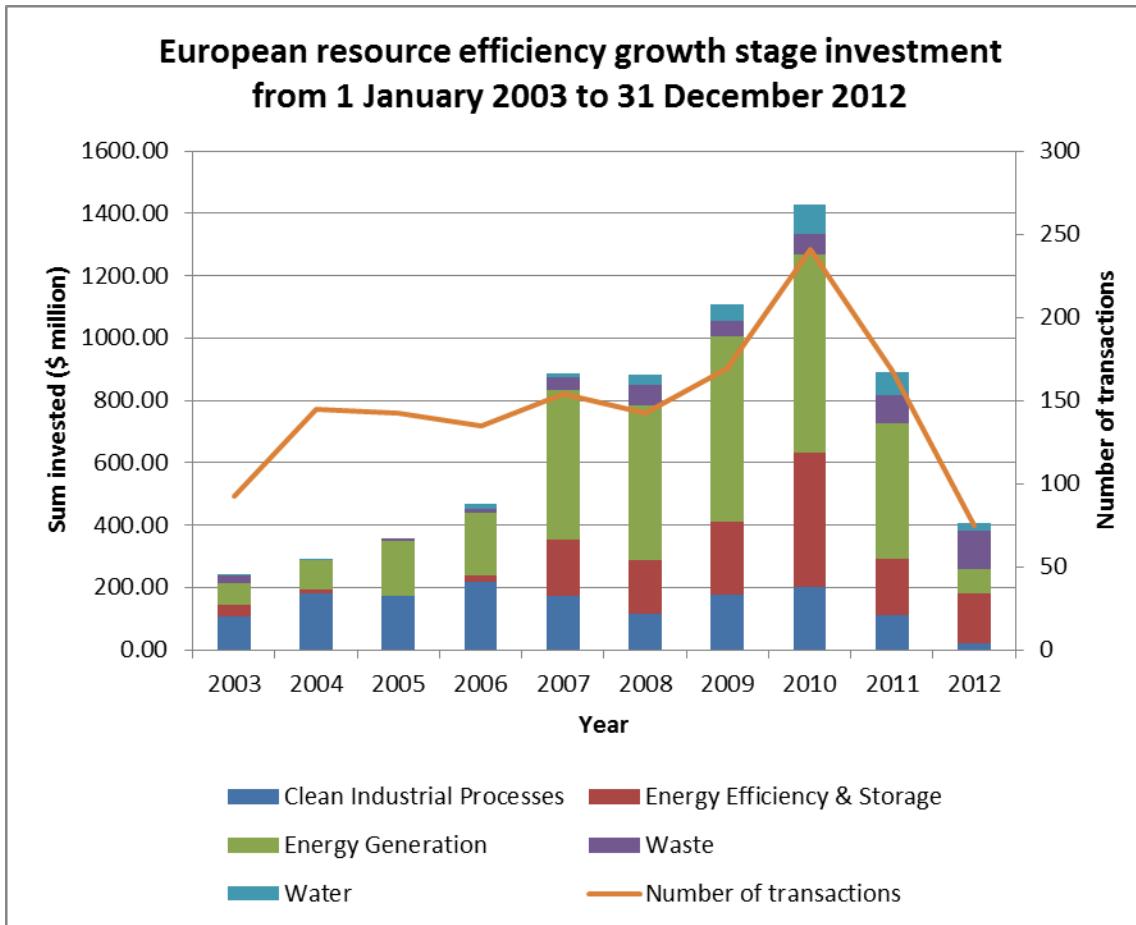
- 1) Market presence and defined route to market expansion
- 2) Compelling customer valuation proposition (e.g. rapid payback)
- 3) Operationally geared and scalable business model
 - Strong barriers to entry including intellectual property
 - High quality and differentiated products
 - Commercial revenues from multiple customers
 - Experienced senior management
 - Defined exit strategy

Strong revenue growth in portfolio for all sizes

OVERVIEW | STRATEGY & VALUE CREATION | TEAM | FUND | INVESTMENT PROCESS & PIPELINE | MAIN TERMS & CONDITIONS | CONCLUSION



The jury is still out on resource efficiency investing,
stay tuned...



Source: WHEB proprietary deal database

Contact

London
2 Fitzhardinge Street
London W1H 6EE
United Kingdom

+44 (0)203 219 3441
info@whebgroup.com

Munich
Maximilianstraße 36
80539 München
Deutschland

+49 (89)122 2808 20

