

## Profile: Per Dahlen, Partner, Portelet Asia Pte. Ltd.

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### About Portelet:

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Portelet Asia Pte. Ltd. ([www.portelet.com](http://www.portelet.com)) is the manager of a Portelet group promoted private equity investment initiative for growth financing with a focus on the Cleantech sector. As an active investor Portelet creates value by internationalising companies with proven technologies that fit the requirements in the Asia Pacific market.

**Portelet** ▶

### About Per Dahlen:

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Mr. Dahlen is an international serial entrepreneur with an outstanding track record of business achievements, now fully dedicated to the fast growing Cleantech market.

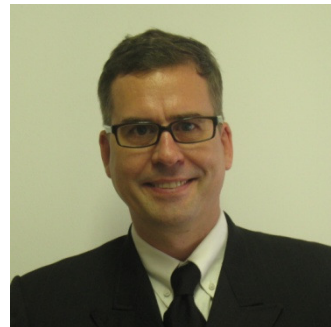
Prior to his return to Singapore, Mr. Dahlen successfully created two software and internet related companies in Barcelona, Spain.

In the 1990's Mr. Dahlen gained international experience with Philips Electronics, managing the new business group for recordable disc technologies and several multi-million projects in Europe, US and in Asia.

With a background as Innovation Engineer complemented with an MBA from IESE, Spain, Mr. Dahlen is an extremely passionate business creator and has to date been involved in more than 250 different new business projects throughout his career.

Mr. Dahlen is married to Ms Phua of Singapore and they have a 4 year old son named Karl.

Full CV available on LinkedIn: <http://www.linkedin.com/in/perbear>



### Cleantech Nominations and Awards:

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#### **Biofuels Digest, USA**

Nominated 'Biofuels Personality of the year, 2010'

Link: <http://www.biofuelsdigest.com/blog2/2009/12/09/biofuels-digest-opens-nominations-for-biofuels-personality-of-the-year-biofuels-company-of-the-year/>

**Biofuels  
Digest** The daily source  
for biofuels news  
**AWARDS**

### Current Cleantech engagements:

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#### **Sustainable Energy Association of Singapore (SEAS)**

Vice Chairman, Market Development Committee

Link: <http://www.seas.org.sg/about-seas/our-committees/market-development>

## **International Golf and Life Foundation, Switzerland**

IGOLF Corporate Advisory Council Member

Link: <http://www.golfandlife.ch/igolf-councils/igolf-corporate-advisory-council-cac/>

## **Biofuels Digest, USA**

Selector of the 50 Hottest Companies in Bioenergy 2009/10

Link: <http://www.biofuelsdigest.com/blog2/2009/12/02/biofuels-digest-50-hottest-companies-in-bioenergy-international-selectors/>

## **Bioenergy Consult, India**

Advisor in financing and business matters for bio-energy projects

Link: <http://www.bioenergyconsult.com/index.html>

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## **Publications:**

### **25Hp tractors and USD 25bn fuel-subsidies**

Biofuels Digest

10-MAY-2010

With this story we continue to explore the tremendous potential for 2nd generation biofuels in Southeast Asia by reviewing 25 horsepower tractors and the USD 25bn fuel-subsidies. Both will play a tremendous role in the deployment of second generation biofuels, both in this part of the world, and maybe also on a global scale.

Link: <http://biofuelsdigest.com/bdigest/2010/05/10/southeast-asia-the-bio-based-arabia-revisited-25-horsepower-tractors-us-fuel-subsidies/>

#### Comments:

*"I am very impressed by your article and could not agree more with the potential you outline"*  
– Tom Mack, President/CEO, Alternative Hybrid Locomotive Technologies, US

### **Southeast Asia – the bio-based Arabia?**

Biofuels Digest

11-MAR-2010

Saudi Arabia is the largest crude oil producer in the world and produces some 11 million barrels per day. Southeast Asia has the potential of producing 14 million barrels per day of renewable biofuels in an environmentally and socially responsible manner," reports Singapore-based renewables analyst Per Dahlen in a new report on biofuels potential.

Link: <http://biofuelsdigest.com/bdigest/2010/03/11/southeast-asia-the-bio-based-arabia/>



## Comments:

“Super” – Jim Lane, Editor & Publisher, Biofuels Digest, USA

“Interesting article” – Gurumurti Natarajan, PhD, GREENTHUMB, India

“Excellent article” – Robert Smallwood, AgriFuels Limited, Australia

## Southeast Asia – the bio-based Arabia?

Advanced Biofuels USA

17-MAR-2010

Saudi Arabia is the largest crude oil producer in the world and produces some 11 million barrels per day. Southeast Asia has the potential of producing 14 million barrels per day of renewable biofuels in an environmentally and socially responsible manner,” reports Singapore-based renewables analyst Per Dahlen in a new report on biofuels potential.

Link: <http://advancedbiofuelsusa.info/southeast-asia-%E2%80%93-the-bio-based-arabia>



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## Media coverage:

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Feb-10: **CNBC Asia – CNBC's Cash Flow**

Airtime: Thur. Feb. 25 2010 | 10:19 AM ET

Per Dahlen, partner at Portelet Asia discusses investment opportunities in biotechnology with CNBC's Oriel Morrison.



Link: <http://www.cnbc.com/id/15840232?video=1424311113&play=1>

Dec-09: **CNBC Asia – CNBC's Cash Flow**

Airtime: Wed. Dec. 16 2009 | 09 11 00 ET

There is a big growth opportunity for biomass in Southeast Asia, notes Per Dahlen, partner at Portelet Asia. He sheds more light on investing green, with CNBC's Sri Jegarajah.



Link: <http://www.cnbc.com/id/15840232?video=1360081599&play=1>

Nov-09: **CNBC Asia Squawk Box**  
Airtime: Wed. Nov. 18 2009 | 09 08 00 ET

Per Dahlen, partner at Portelet Asia says the region has potential to produce much more green energy, and that Southeast Asia could someday be a net exporter of clean fuel. He talks to CNBC's Martin Soong.



Link: <http://www.cnbc.com/id/15840232?play=1&video=1334660071>

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## Previous speaker engagements:

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- May-10: **World Bioenergy 2010**  
Presentation: Southeast Asia – the Saudi Arabia of Biofuels?
- Apr-10: **Biofuels in Asia 2010**  
Presentation: *Growth opportunities for biomass in Southeast Asia*
- Dec-09: **BESS – BioEnergy Society of Singapore**  
Presentation: *Potential of Algae Projects in Asia – Singapore Focus*
- Nov-09: **Biofuels International ASIA expo & conference, Singapore**  
Presentation: *Algae's role in the future of Asian biodiesel*
- Nov-09: **Algae Asia Summit 2009, Kuala Lumpur, Malaysia**  
Presentation: *Potential of Algae Projects in Asia*
- Nov-09: **Rotary Singapore, Singapore**  
Presentation: *Vast untapped potential of Renewable Energy in Southeast Asia*  
  
Summary available here:  
[http://www.rotary.org.sg/pdf/crossroads\\_vol46\\_20\\_issue\\_11162009.pdf](http://www.rotary.org.sg/pdf/crossroads_vol46_20_issue_11162009.pdf)
- Aug-09: **2nd IGOLF Singapore Golf and Environment Forum**  
Presentation: *Environmental impact from Golf Clubs*
- Aug-09: **National Renewable Energy Summit 2009, Malaysia**  
Presentation: *Renewable Energy in Asia*
- Jun-09: **SOE (Spirit of Enterprise) Networking and Charity Event**  
Presentation: *The State of Play in Europe and Asia*
- May-09: **1st APLGI/IGOLF Indonesian Golf and Environment Forum**  
Presentation: *Environmental impact from Golf Clubs*
- May-09: **2<sup>nd</sup> Annual Biofuels Summit, Singapore**  
Chairman Day 1 and Day 2  
Presentation: *Biofuels Storage and Shelf-life* (Rating: 8.5/10)

Masterclass Leader:

(Rating: 9.3/10)

*Optimizing of Feedstocks  
Financing of BioDiesel Projects*

*“Per has done an excellent job as Chairperson, Speaker & Masterclass Leader for the 2nd Annual Biofuels Summit 2009 in Singapore. I am happy to announce he has been one among the highest rated speaker for this 3 day international event. The tremendous effort and impeccable knowledge on renewables that he has put forth is greatly appreciated! Per's insights on Financing Biodiesel Projects & Optimization of Biofuel Feedstocks has contributed immense value on making this event a success! I personally appreciate and thank his leadership and cooperation!”* June 2, 2009, Jyothi Rajan, Salvo Global

Jan-09: **Biofuels Indonesia 2009, Jakarta**

Chairman Day2

Presentation: Biomass Waste to Biofuels

(Rating: 8.5/10)

Nov-08: **AlgaeWorld 08, Singapore**

(Rating: 8.3/10)

Presentation: *Market Potential for Algae Biofuels in Southeast Asia*

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## **Scheduled speaker engagements:**

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Jun-10: **Asia Oceania Convention- Global Sustainability Bioenergy Project 2010**

UTM - Universiti Teknologi Malaysia

14th-16th June 2010, Kuala Lumpur, Malaysia

### **Sustainable Bioenergy production in Southeast Asia**

Southeast Asia is the ideal region for biomass cultivation for Bioenergy and Biofuels, this presentation gives a new perspective on the potential and the implication for the region over the coming 20 years. Can Southeast Asia really produce more renewable biofuels than Saudi Arabia is pumping crude oil today? Can we do it in a sustainable way?

Conference details here: <http://www.cepp.utm.my/gsbasia/index.php>

Jul-10: **ibio-2010**

BIT's 3<sup>rd</sup> Annual World Congress of Industrial Biotechnology

25-27 July, 2010, Dalian, China

### **Prospects and Potential of Algal BioRefinery in Southeast Asia**

1. *Algae – the ideal feedstock*; there are many advantages with algae as a bio-feedstock, among the most quoted are the high-yield per area and the use of non-arable land, flexibility in water usage (saline, wastewater) and the advantage of being a non-food crop. Though, these are very

important advantages but the key drivers making Algae the ideal feedstock, is due to the algae's (i) biochemical flexibility, (ii) time to harvest and (iii) harvest frequency.

Algae can easily be genetically modified to create specific strains suitable for the BioRefinery but even without GMO, algae can easily be made to produce different compounds by slight variations in nutrition, light, temperature and pH during the growth cycle. This enables the algae farmer to optimize the yield of each and every harvest. Once the Algae 'plantation' have been constructed, the first harvest can be made after 3-5 days after sowing the seeds, and from then on a new harvest can be made some 100 times per year enabling tremendous flexibility in feedstock production.

*2. BioRefinery – the future of processing;* With algae we are able to harvest 100% of the biomass, compared to only 30%-50% of traditional feedstock and by cascading the refining process we will be able to use all of the harvested biomass, producing zero waste. On average we can extract 5% of high-value compounds from each harvest and using the remaining 95% for low-value products such as bio-fuels.

With an average price of US\$10/Kg for high-value added products and with oil at US\$70/bbl, each hectare of an algae field will generate some US\$75,000 per year; this should be compared to traditional crops like Palm which only can generate up to US\$4,000 per hectare per year. Within the next 2-3 years there will be several suppliers of algae production equipment such as photo bio-reactors, harvesting equipment and compound extraction solutions hence the most important for an algae farmer is to secure land, water and CO2 rights and supply agreements.

*3. Southeast Asia – the natural region for algae plantations;* Located in the tropics with stable temperatures year around and surrounded by water, Southeast Asia is the ideal and natural region for algae plantations. Plenty of non-arable land, easy access to CO2 sources and cheap, but skilled, labour provides the perfect grow ground for algae cultivation with several installations already producing algae and many more on the drawing-board.

Congress details here: <http://www.bit-ibio.com/program.asp>

*Aug-10: **ICOPB-2010***

2nd International Conference on Oil Palm Biomass  
2-4 August, 2010, Bangkok, Thailand

### **Advanced Biofuels from Palm Biomass**

Technological advances over the past five years have now brought second generation Biofuel technologies to be ready for commercialization. Plantation and Palm milling operations can double operating margins by investing in the right technology. The BioRefinery

concept is the future path forward, by combining food and fuel processing in an economically viable and sustainable way, with zero waste.

Conference details here: <http://www.icopb.com/default.html>

*Sep-10:* **FAME 2010 Summit and Exhibition**

Green World Conferences

*13-14 September 2010, Berlin, Germany*

**Financing Biofuels Production Facilities**

Second-generation biofuels entered the commercialisation stage and the emphasis is shifting towards projects. What are the main points for consideration when seeking finance for a second generation biofuel project? This presentation will give participants a clear view about the possibilities and a framework to use when planning biofuel projects.

Conference details here: <http://greenworldconferences.com/fame.html>

*Nov-10:* **Green Energy Conference**

International Green Energy Conference and Exhibition

*22-23 November, 2010, Kuala Lumpur, Malaysia*

**Advanced Biofuels from Palm Biomass**

Technological advances over the past five years have now brought second generation Biofuel technologies to be ready for commercialization. Plantation and Palm milling operations can double operating margins by investing in the right technology. The BioRefinery concept is the future path forward, by combining food and fuel processing in an economically viable and sustainable way, with zero waste.

Conference details here: <http://www.greenenergyconference.org/>