Sønderjysk netværk for vækst og vidensdeling på tværs
groNet

LINAK

Bright Green Business
ProjectZero

a consistent green company

Project Zero

DONG Energy, Enervision, Syd Energi.

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Agenda

DESKLINE®
IMPROVING ERGONOMICS

1. LINAK in brief
2. Green activities
3. Future energy sources
4. Any questions?

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LINAK in Brief

DESKLINE®
IMPROVING ERGONOMICS

- More than 1600 dedicated employees
- Production sites in Denmark, Slovakia, the USA and China
- Development, production and sale of linear actuator solutions
- Global presence through 26 subsidiaries
- Family business; owned and managed by Bent Jensen
- Certified according to ISO 9001-2000 and ISO 14001

More info on www.linak.com

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LINAK Factories

DESKLINE®
IMPROVING ERGONOMICS

LINAK Louisville KY

LINAK China

LINAK A/S Denmark

LINAK Slovakia

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Our Core Businesses

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MEDLINE® & CARELINE® systems for those who care
LINAK is the world's leading supplier of actuator systems for the hospital and healthcare business areas.

DESKLINE® systems for the office and the workplace
With actuator systems for office desks and workstations.

HOMELINE® systems for comfort at home
By means of electrical actuation, LINAK helps cover the ever increasing demand for adjustable comfort furniture.

TECHLINE™ systems for the rough spots
LINAK is the leading developer and supplier of electromechanical quality actuators for the industrial, energy and agricultural markets.

NETLINE™ Improving network automation.
A complete solution built to systems for electricity distribution.

Our Green Strategy

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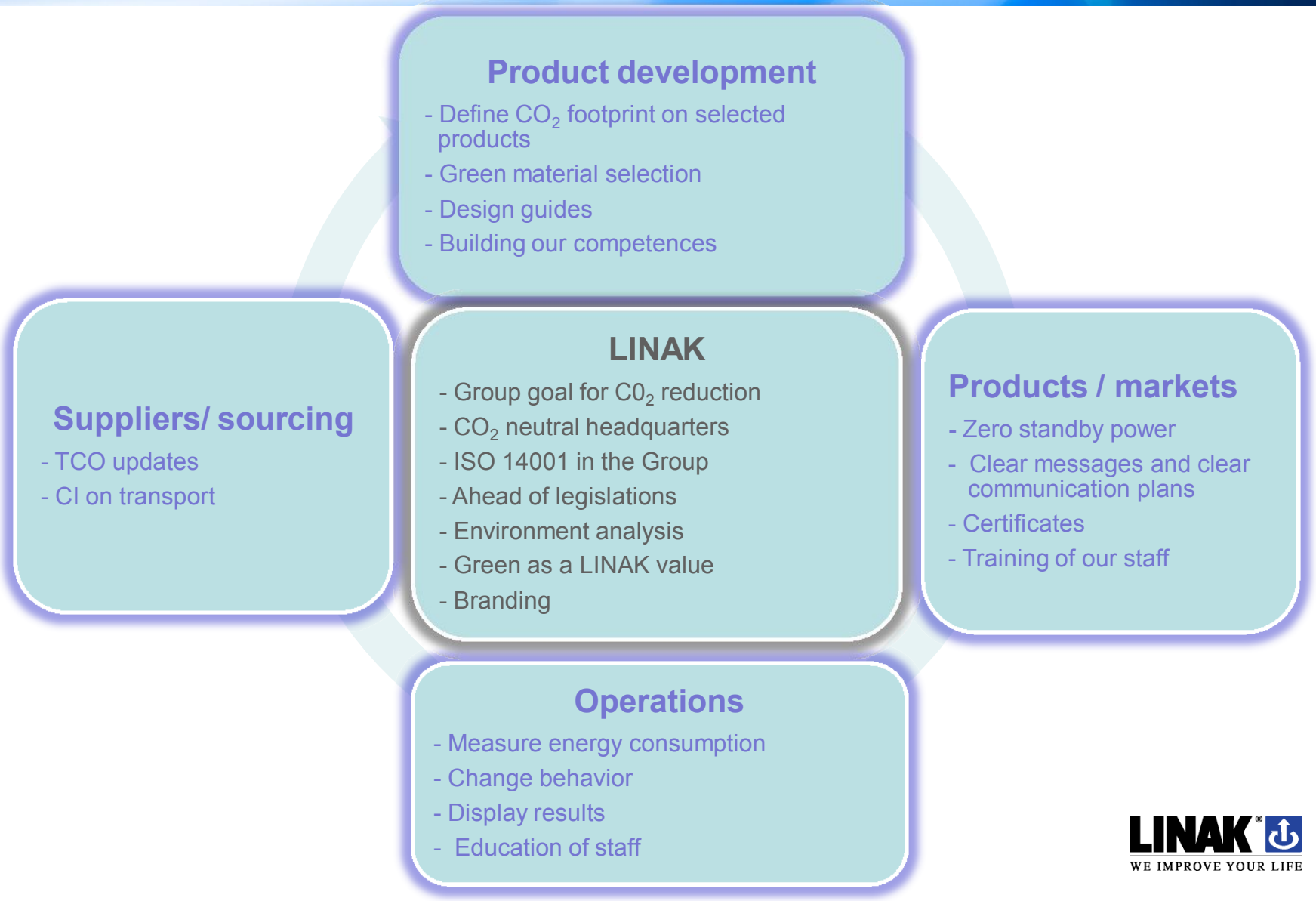

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Activity overview energy & environment	m^3 gas reduction per year	El kWh reduction per year	Ton CO_2 reduction per year	Expected costs	Status
Heat recovery from paint cabin	53.310		121	kr 476.400,00	Completed
Gas furnace DESKLINE 1 pcs. reduction 22%	23.300		53	kr 15.000,00	Completed
Gas furnace boiler North 1pcs. 10% reduction	24.000		54	kr 10.000,00	Completed
Gas furnace boiler East 4 pcs. minimum 7% reduction	36.640		83	kr 87.234,00	Completed
Gas furnace boiler South 1 replacement for worn boiler	2.502		5	kr 349.250,00	Awaits 2013
Allu saw with exhaust in Machining Department	2.800	31.000	21	kr 39.467,00	Completed
Valve on exhaust device from machines in Machining Dept.	13.636	36.000	48	kr 39.467,00	Completed
Energy-saving power strips		40.000	18	kr 23.000,00	Completed
New compressor North from 22kW to15kW		22.000	10	kr 80.000,00	Completed
New compressor South from 22kW to 11kW		59.769	28	kr 109.800,00	Completed
New compressor DESKLINE from 30kW to11kW					Active
New compressor East 1 pcs. Instead of the present 3 pcs.		52.104	24	kr 265.000,00	Awaits
Reduction in leakage compressed air		205.000	96	kr 40.000,00	Completed
LED and other light 62-87% reduction		456.530		kr 1.600.000,00	Active
Rest heat paint cabin	41.820			kr 235.574,00	Active
Heat recovery air compressors					Active
Ventilation optimisation					Active
Totally	**198.008**	**902.403**	**561**	**kr 3.370.192,00**	
Green energy					
1 megawatt LINAK wind turbine 850 kilowatt		1.429.568	676	kr 8.500.000,00	Active
Solar plants with LINAK tracking system		90.000	42	kr 4.300.000,00	Completed
Biogas plant & green district heating					Year 2012/14
Electric cars – here we follow the development					Awaits

LINAK's reduction objective 7% and 4% in 2011/2012	2010/11	Reduction goals in ton
LINAK annual el kWh CO2 emission	2.416	170
LINAK annual gas CO2 emission	1.322	53
Totally	3.738	223

1kWh electricity is 473g CO_2

1m^3 natural gas is 2284g CO_2

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LINAK Solar Park

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- Close to the factory we have installed our own test park
- 28 trackers are installed, the trackers are from different LINAK customers.
- In the park we display several LINAK solar actuators
- The solar park serves as a test environment for climate, load and lifetime tests etc.

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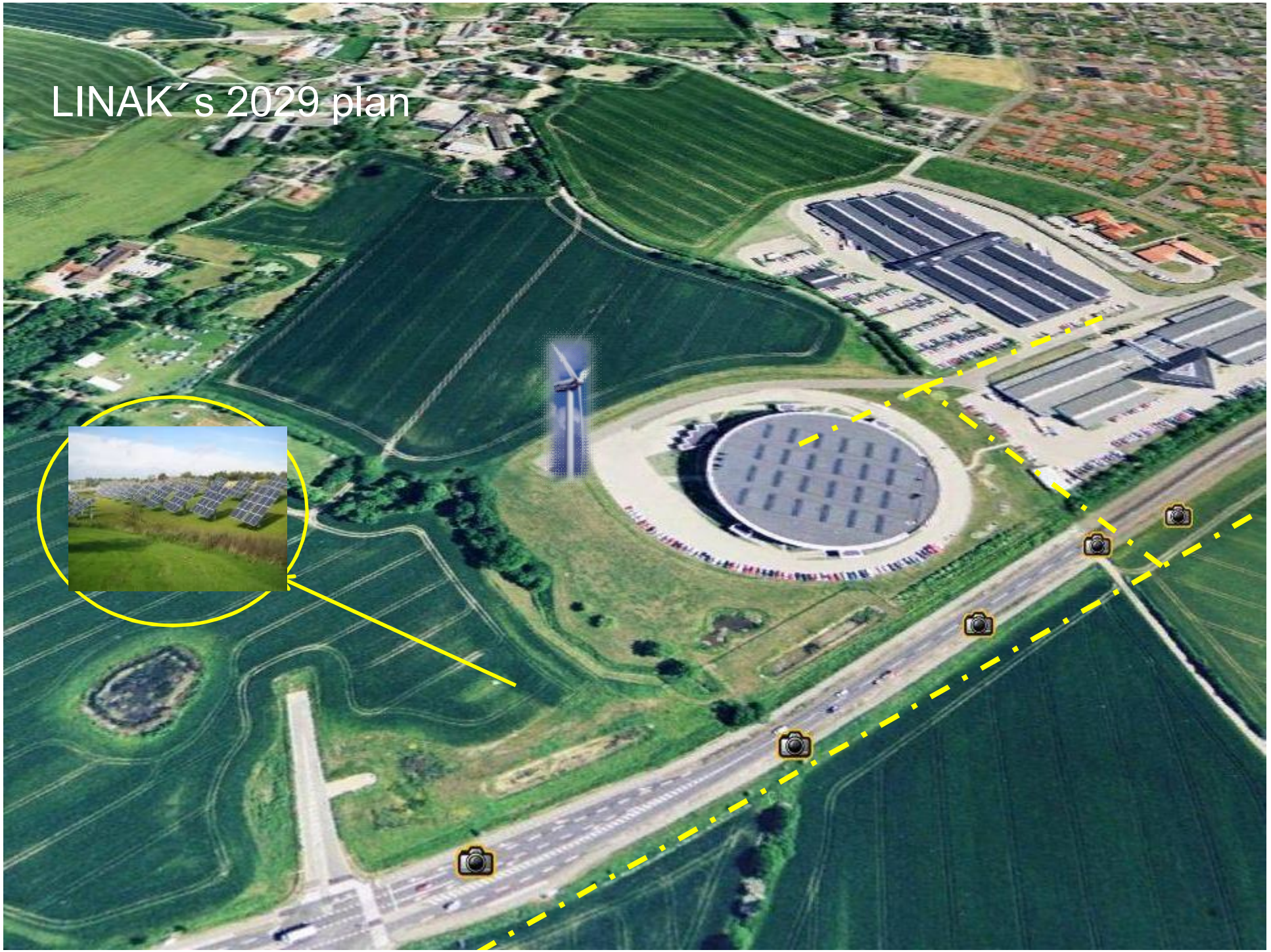
Solar Park Data

Facts:

- Land area app 4500 m^2
- Solar power installed 75 Kwp
- Energy production approx.100,000 Kwh
- Approx. 3% of our total power usage
- 550 m^2 solar surface
- 28 trackers
- 3 types of trackers (all LINAK customers)
- 2 types of LINAK products all with Modbus comm.
- 2 central PLCs control the whole park
- 10 pcs Danfoss inverters
- Extra output with trackers approx. 22% (measurement over 1 year)
- Remote surveillance via SCADA and WEB

LINAK´s 2029 plan



Wind Turbine Data

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The turbine is in the hearing phase. A statement is promised by end of May 2012

- Vestas V 52 850 – 850 kW
- Hub height 54 m
- Rotor diameter 52 m
- Total height 80 m
- Annual electricity power generation 1.6 mill. kWh
- Hereof 1.1 mill.. kWh (approx. 70 %) for own consumption
- The rest of the consumption is sold to the electrical networks
- With a turbine size of 850 KW approx. 20 - 25% of LINAK's power consumption can be produced by wind power

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A new Energy Infrastructure

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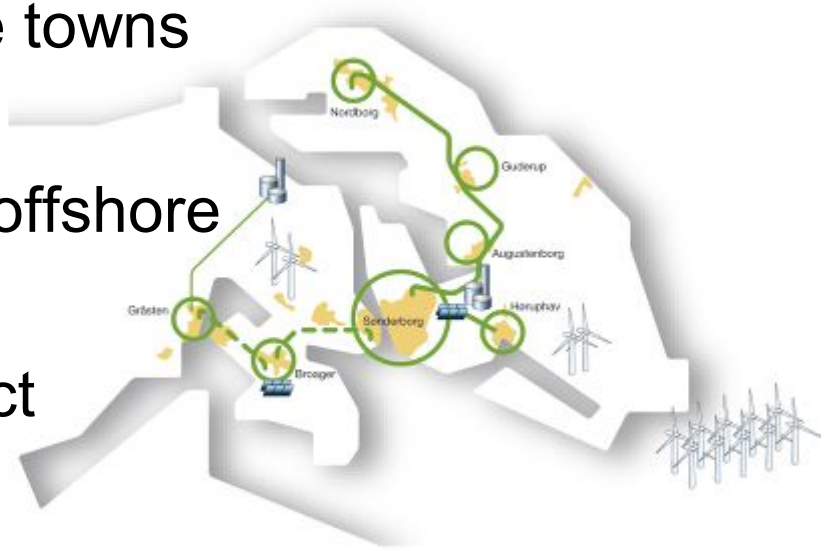
- TOWARDS ZERO sets an example 2015
  - **Green heat pumps** in rural districts
  - **Green district heating** in the towns
  - **Biogas plants**
  - **Wind turbines** onshore and offshore
  - **Energy efficient renovation**
  - **Electric cars** as a pilot project
  - **Learning** & competences







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Thank you for your attention

Take responsibility for the future

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