Meløy Næringsutvikling

Meløy (Nordland)

- experience the world's most beautiful coastline

Growth and competitiveness through renewable energy resources
Workshop: 06B07







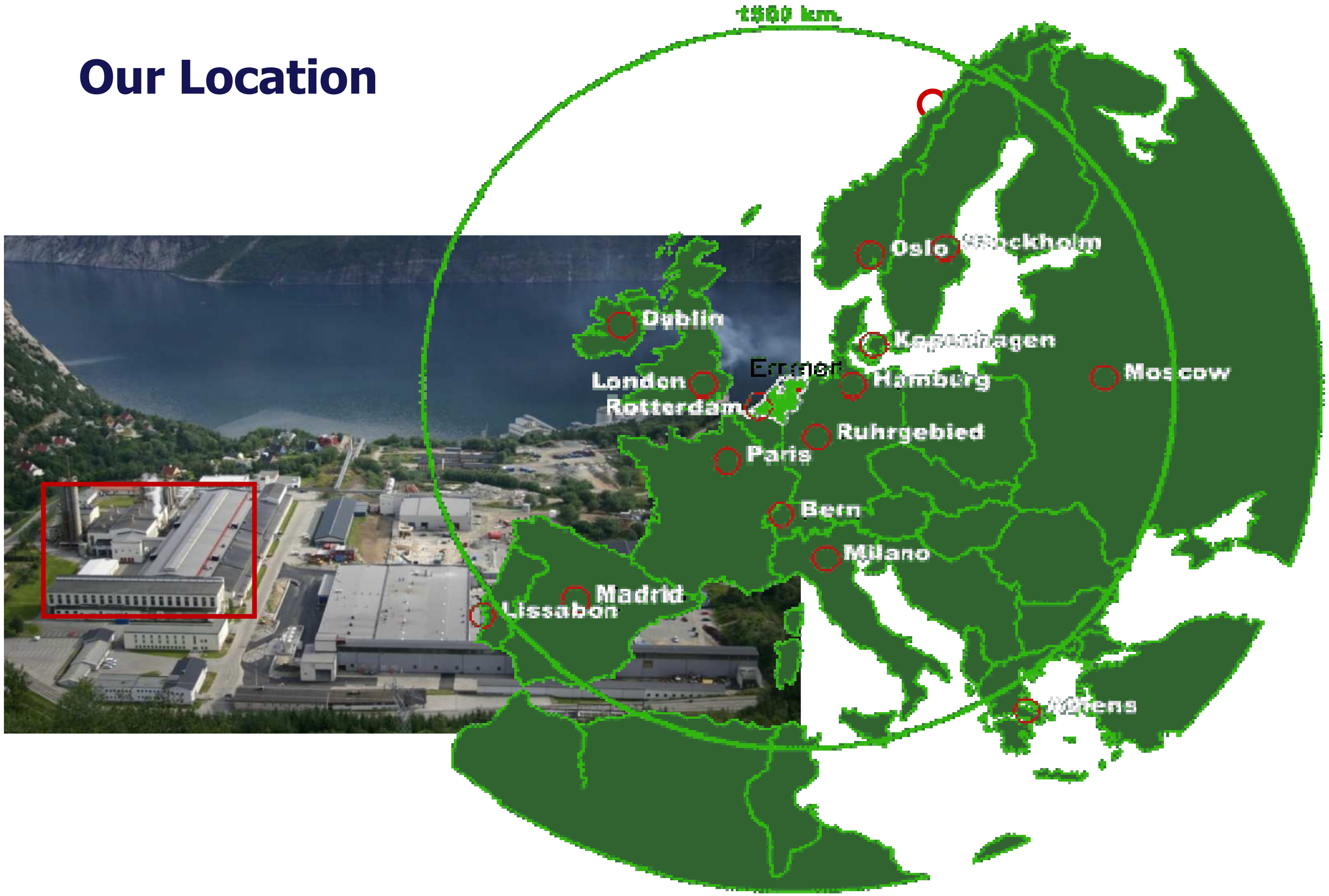

Ide, tekst og layout: Lothar Maruhn
Foto: Lothar Maruhn og Edmund Ulsnæs

Meløy Næringsutvikling

Our Profile

Motivated INnovative Universal

Our Location



Meløy Næringsutvikling

Our Profile

Motivated INnovative Universal

Our main Purpose

- Contribute and support ideas and projects in creating profitable jobs and companies, develop industrial infrastructure

Our Products and Service

- Advising, financing and network, idée- and project development

Our Partners

- Start-up companies, entrepreneurs and existing companies

Our Advantage

- Broad competence and network, flexibility and un-bureaucratic in our work

Meløy Næringsutvikling

Our Profile

M otivated **IN** novative **U** niversal

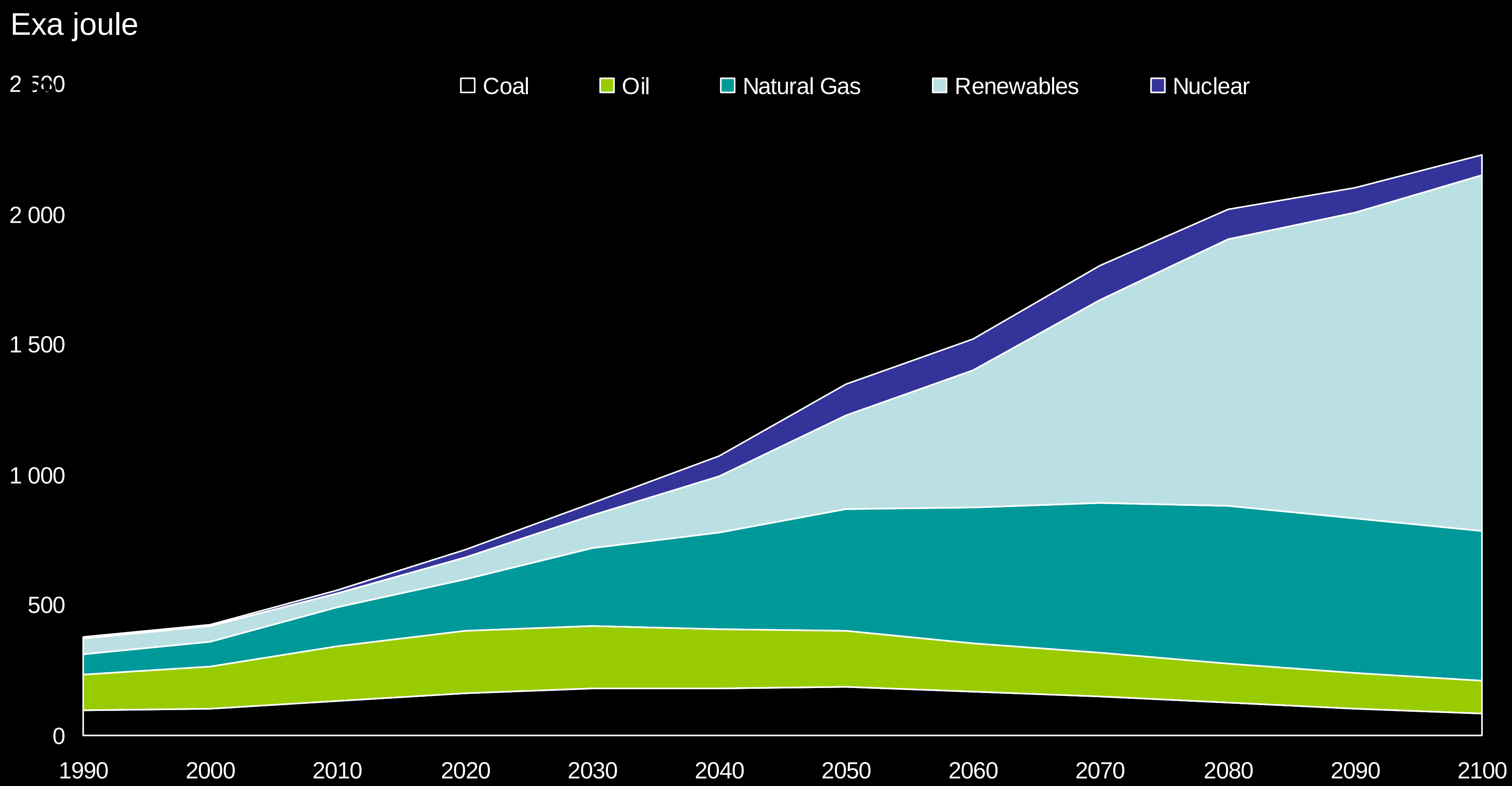
Our Organization

Lothar Maruhn
President/CEO
100 %

- Hans Cho
  Project Manager
  CMC/Seoul/Korea
  Project ”Quarts vision”
  - **Hiroyuki Watanabe**
    Consultant/advicer
    Japan/Kina
    Project ”Quarts vision”
- Randi Tinnan
  Manager
  Meløy
  Tourist office
  100 %
- Finn Nordmo
  Consultant
  60 %
- Arnhild E. Johansen
  Consultant
  100 %

The increasing demand for energy

Supply of different energy sources

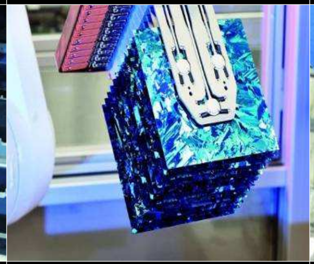


Definition: exa joule (EJ) is a unit of energy, 10^{18} joules, often used as unit of measure for world annual energy use

REC – AN INTEGRATED PV COMPANY

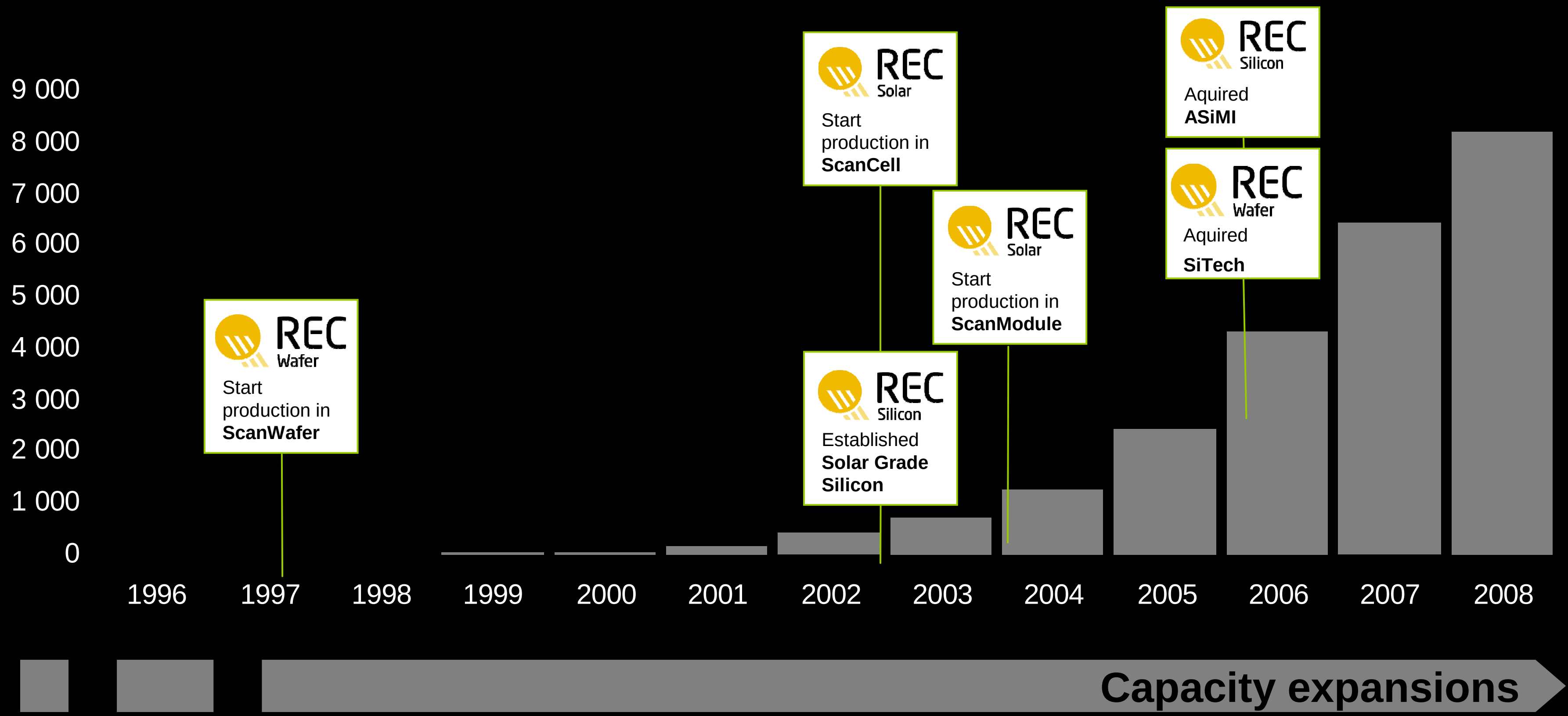
Renewable Energy Corporation

REC GROUP

REC Silicon	REC Wafer	REC Solar		
		Cells	Modules	Systems
				
→ Chemical process	→ Casting and cutting	→ Surface treatment	→ Assembly	→ Project development

REC

REC has outpaced the industry's explosive growth



Close to 3,5 billion € in expansions

REC Silicon 10,500 MW – REC Wafer 1,875 MW – REC Solar 550 + 590 MW

REC

The Singapore project

Si Pro

SCAN QUARTS

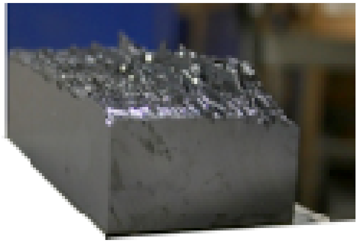
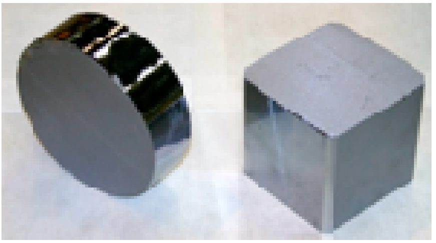
Scan Crucible

Spin-off companies in Glomfjord Industry Park

SiPro recycles silicon and various metallic guides to the PV industry

Si Pro

PV APPLICATIONS

Silicon recovery		Metallic guide recovery
 Ingot side cuts	 Ingot tops	 Drums for wafer saw wire
 Block side cuts	 Mono crystal blocks	 Metallic Guides for block sawing

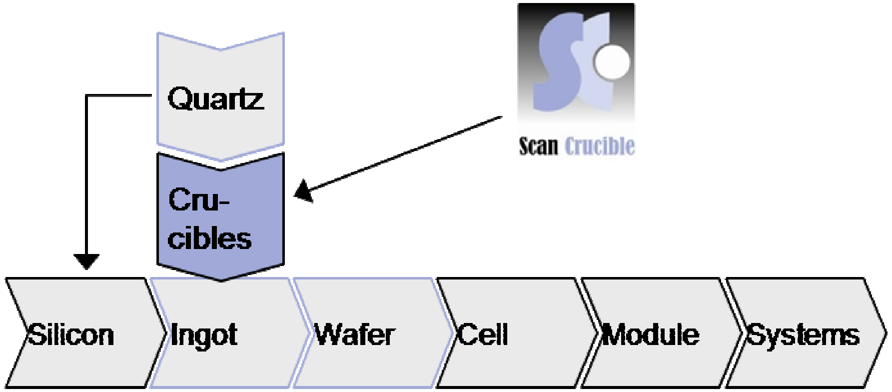
- MULTI: Roughly 25% of the multi ingot needs to be recycled
- MONO: Roughly 36% of the mono ingot needs to be recycled

SEMICON. APPLICATIONS

- Similar to Mono PV: Roughly 36% of the mono ingot needs to be recycled

Si Pro

ScanCrucible positioning in the PV industry



- High quality crucibles are critical for the ingot manufacturer to achieve high production yields and competitive ingot quality
- Crucibles represent a key cost driver for ingot manufacturing
- PV ingot manufacturers typically also manufactures wafers. Ingot and wafer manufacturers operate with long term sales contracts and very attractive operating margins
- There are basically two large, global hubs for ingot and wafer manufacturing; Northern Europe and China
- Mono PV cells represented 42% of global PV installations in 2007[1)]

Glomfjord Industry Park

Meløy (Nordland)

- Glomfjord Industry Park

Glomfjord Industry Park

BIS Production Partner Glomfjord

Yara Norge as Glomfjord

Marine Harvest Norway AS

SiPro as

REC Norway Wafer Glomfjord Mono

REC Norway Wafer Glomfjord Multi

Scan Crucible AS

MoMek AS

Miras Group AS

Libitum AS

Terje HalsanAS

Meløy Næringsutvikling AS
1) MNU Meløy Eiendom AS
2) MNU Meløy Innova AS
3) Scan Quarts AS
4) MNU Meløy Turistkontor

Meløy BedriftsService as
1) Hertz Bilutleie Bodø
2) Løvold avd. Meløy

Nordlandsforskning/HiBo

MoLab as

ISS Norge as

Glomfjord Industry Park

- added value and employees

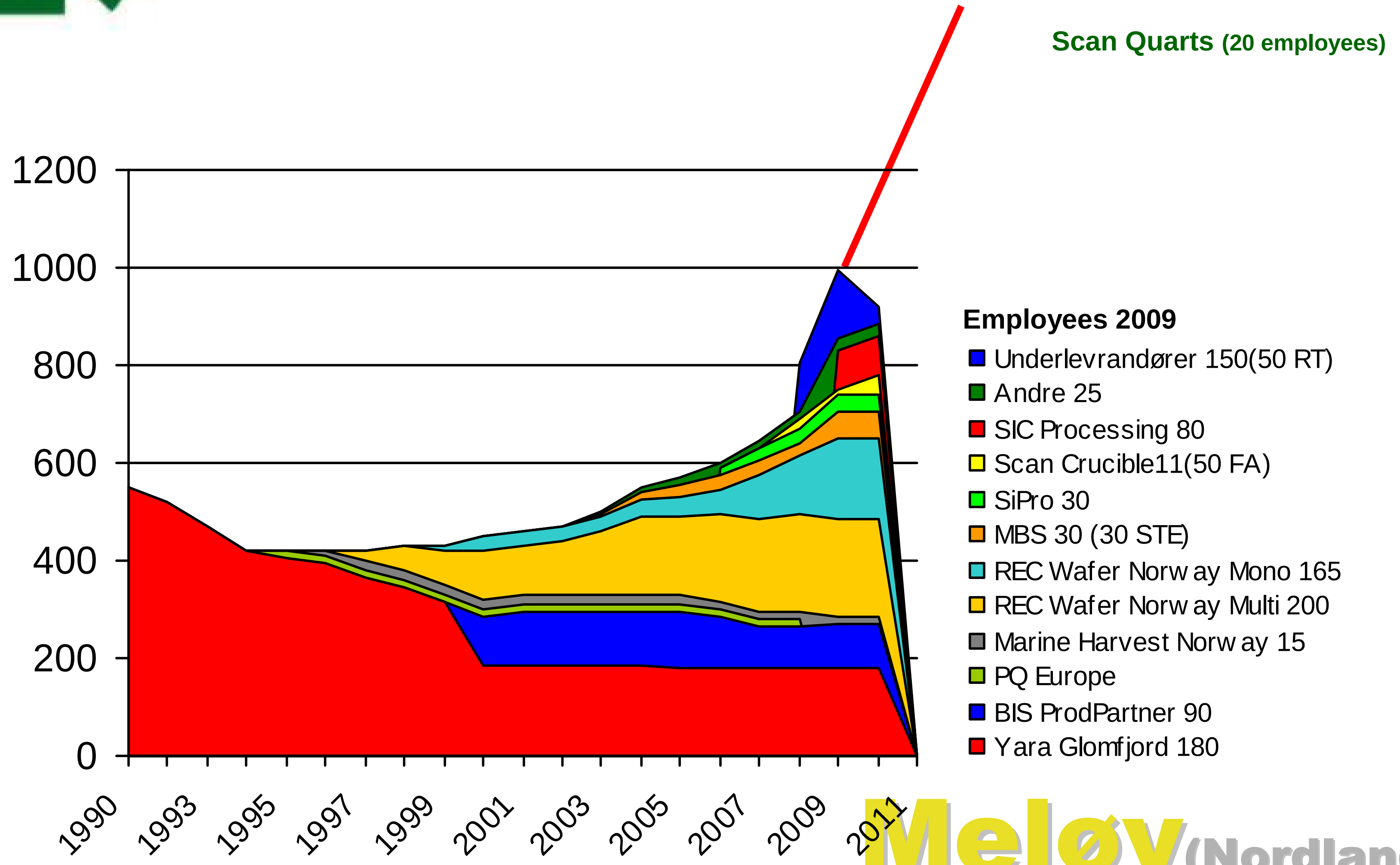
Company	Employees			Turn over		NOK in 1.000
	2002	2007	2008	2002	2007	2008
Yara Norge Glomfjord	240	180	190	820,0	1.100,0	1.899,0
BIS Production Partner	113	85	96	72,0	75,0	110,0
REC Wafer Norway Multi Glomfjord	167	190	200	415,0	1.400,0	1600,0
SiNor AS	55			34,0		
REC Wafer Norway Mono Glomfjord		90	165		220,0	240,0
PQ Norge Silicates AS	16	13	13	48,0	90,0	70,0
Glomfjord Smolt AS	1			18,5		
Marine Harvest Norway AS	17	15	15	40,0	60,0	52,0
Meløy BedriftsService as	7	29	45	1,7	20,0	29,9
Meløy Næringsutvikling AS	1	5	4	1,5	5,0	4,5
SiPro AS		26	33		20,0	31,6
Scan Crucible AS		4	11			0,4
Andre		10	25		10,0	15,0
SUMMARY	617	647	797	1.450,7	3.000,0	4.038,9
				€ 171,0	€ 353,0	€ 475,0
2000		493		1.050	(NOK)	€ 124,0

Glomfjord Industry Park

- a Norwegian industrial fairy tail

Others (20 employees)

Scan Quarts (20 employees)

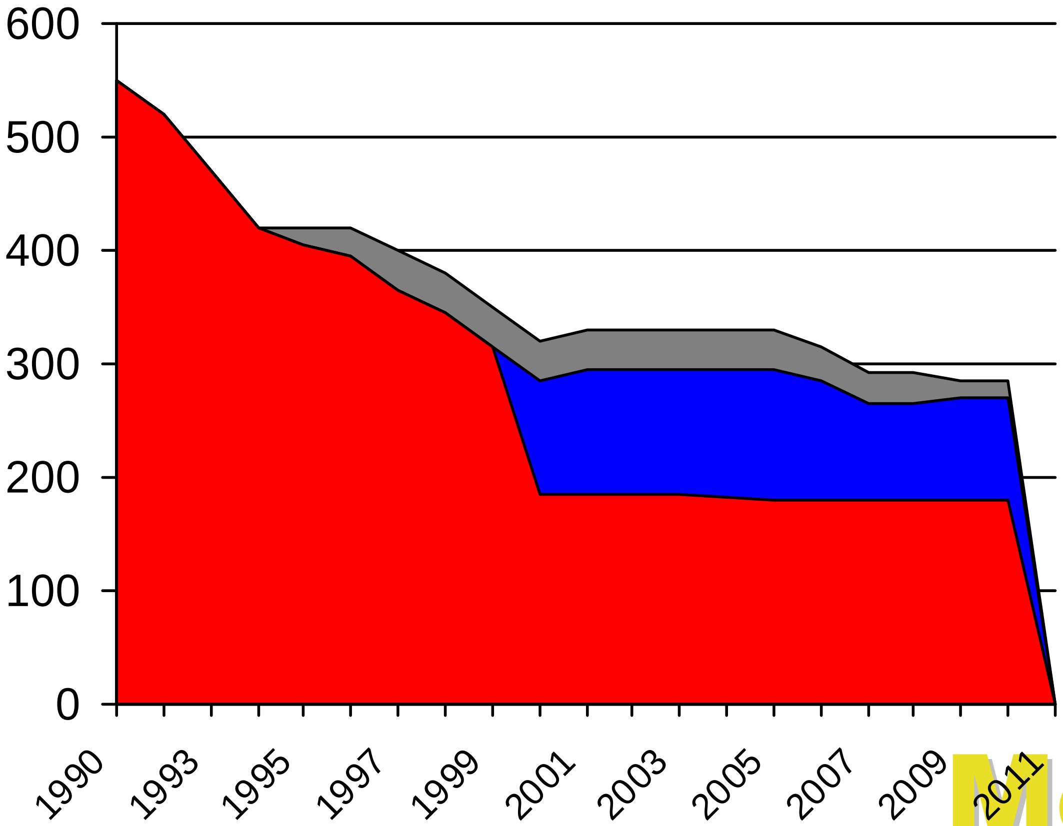


Meløy (Nordland)

- Glomfjord Industry Park

Glomfjord Industry Park

- a Norwegian industrial failure(what could have happened)



Meløy (Nordland)

- Glomfjord Industry Park