



Tromsø – The Hot Spot for Cold Biotech

A Cluster on Blue Biotech

Lisbon, December 14th , 2011

Ernst Kloosterman, cluster manager

Biotechnology in Tromsø



Tromsø, Northern Norway

25 – 30 'stakeholders'

Presentation agenda

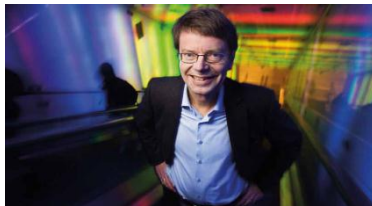
- National politics – cluster as a tool for increased value creation
- Biotechnology in Tromsø – birth of a cluster
- BioTech North – program for development of the cluster
- BioTech North – some members highlighted

Lonely enterprises live dangerously



Ministry of Trade and Industry: stimulates cluster formation

Arena is a national programme for long term development of regional business clusters. The programme offers both advisory and financial support.



– Ensomme bedrifter lever farlig

Nettverk, klynger og satsing på sterke næringer er oppskriften for at Norge skal lykkes i fremtiden, mener Torger Reve.

Tekst: Susanne Ringdal



(Innovation Norway, Research Council, SIVA)

skal bidra til å:

- utnytte konkurransefortrinn
- utvikle og profilere Tromsø som regional motor
- fjerne flaskehalsar
- gi bo-, besøks- og etableringslyst
- utløse spleiselag
- realisere prosjekter med gjennomføringsevne

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Biotechnology in Tromsø – the Arctic Capital



Biotechnology in Tromsø



Clare



CONCORDIX





- Marine lipids, peptides, enzymes for
 - Pharmaceuticals, nutraceuticals, cosmeceuticals
 - medical diagnostics, molecular diagnostics and engineering
 - ingredients
 - aquaculture



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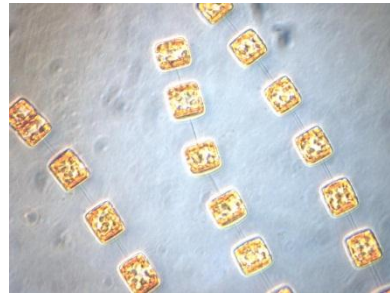
Ansiktskrem

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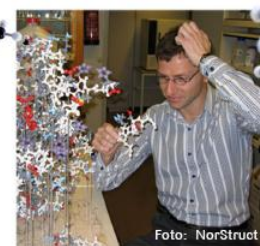
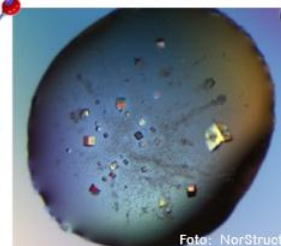
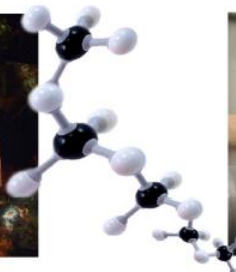
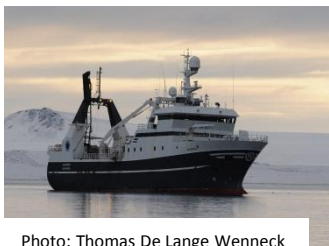
- Marine Bioprospecting (arctic)
Nationally leading

- Micro algae
- Biocatalysis



Biotechnology in Tromsø

- Marine Bioprospecting (arctic)
- Marine lipids, peptides, enzymes
- Micro algae
- Biocatalysis



Status after 35/40 years 'strategic development approach'

- Strong relatively large marine (biotechnology) science sector
- Well-developed (regional) support structure
- Relatively few SME's, no large strong biotech companies

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Growing awareness of 'it is not good enough'

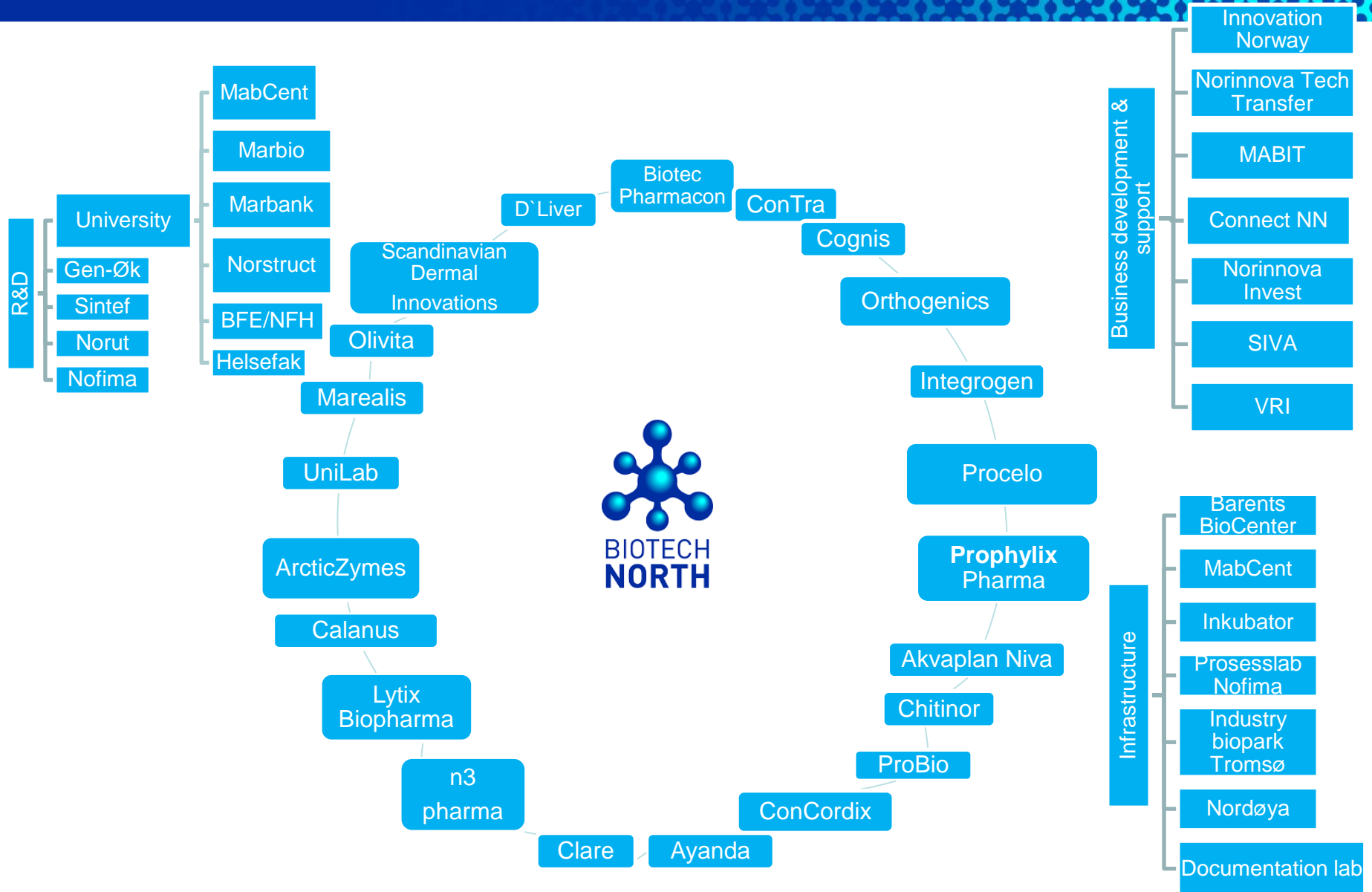
Conclusion after large workshop and subsequent study:

Enhance business development and value creation

Tools:

- ***Common infrastructure***
- ***Biotech network with network secretariat***

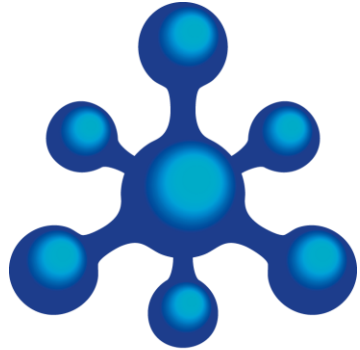
Biotechnology in Tromsø – 2010/2011



Needs/wishes of Tromsø's biotech cluster, May 2011

1. Meeting places and knowledge transfer
2. Competence – capacity building
3. Common infrastructure
4. Capital and finance
5. Promotion





**BIOTECH
NORTH**

The leading center for research and commercialization of marine bioactive compounds from the Arctic

***We cooperate where we can
and compete where we shall***



Biotechnology in Tromsø – some business highlights

Calanus



Calanus Finmarchius

Harvesting and processing
→

Omega-3



Nutraceutical; obesitas, diabetes

Marealis



Pandalus borealis

Melt water and processing
→

Peptides



Nutraceutical; hypertension

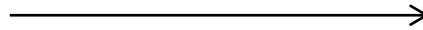
Biotechnology in Tromsø – some business highlights

ArcticZymes



Pandalus borealis

Melt water and processing

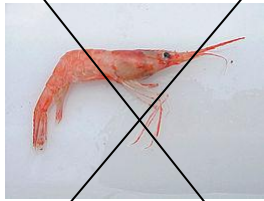


Shrimp Alkaline
Phosphatase

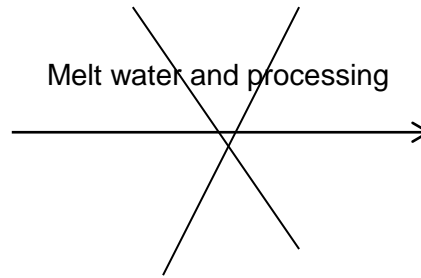
Cold adapted Enzymes for
molecular diagnostics & engineering

Biotechnology in Tromsø – some business highlights

ArcticZymes

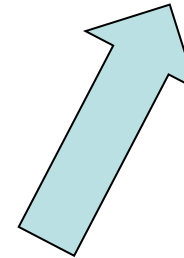


~~Pandalus borealis~~



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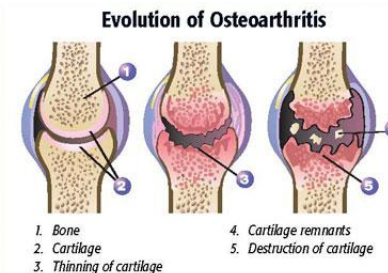


DNA-Recombinant technology

None-marine medical business developments

- Orthogenics

Early diagnosis of bacterial osteoarthritis

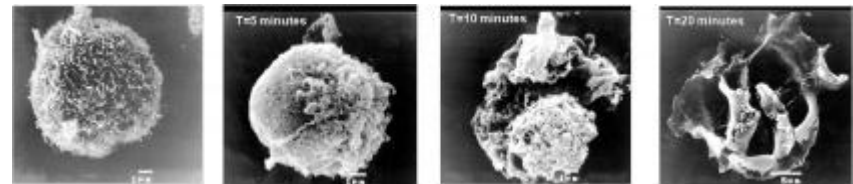


- D'Liver

CRO for testing drug delivery

- Lytix Biopharma

Development of drugs for treatment of bacterial and fungal infections and cancer





Blue Cluster with cluster secretariat

Cluster strategy and communication plan

Open for cooperation – national & international

Strengthen blue biotech – *Bioprosp conference series*
(next February 2013)

BIOPROSP 2013

A biennial International Conference on Marine Bioprospecting from cold marine environments, Tromsø, Norway
The 6th BIOPROSP Conference - February 20th - 22nd 2013

Conference objectives:

- The BIOPROSP conferences aim to present explorative research and its industrial applications in an integrated fashion.
- *(The focus on BIOPROSP 2011 will be industrial biotech and bioprospecting as a stepping stone towards the bio economy)*
- The focus on BIOPROSP 2013 will be

www.bioprospect.com



Tromsø – The Hot Spot for Cold Biotech

'The leading center for research and commercialization of marine bioactive compounds from the Arctic'