







### INNOVATIVE AND COMPETITIVE REGION OF TRØNDELAG.

LUBLIN, 25th of January 2017





## Trøndelag .... In the middle of..everything

- Geographical region in the central part of Norway, consisting of the two counties Nord-Trøndelag and Sør-Trøndelag.
- 2. Population : ca 400 000
- 3. Capital: Trondheim
- 4. Critical mass of research and knowledge

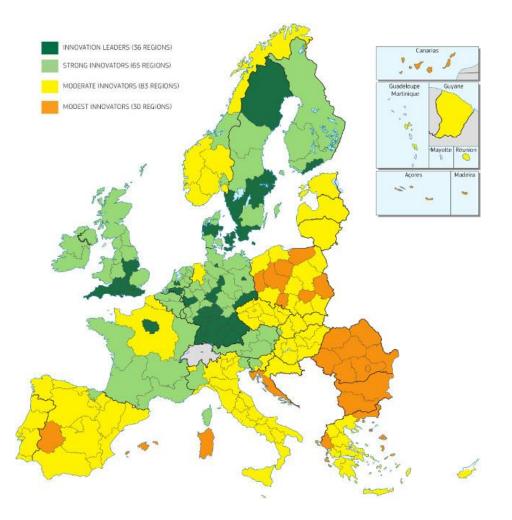








## **Regional Innovation Scoreboard 2016**

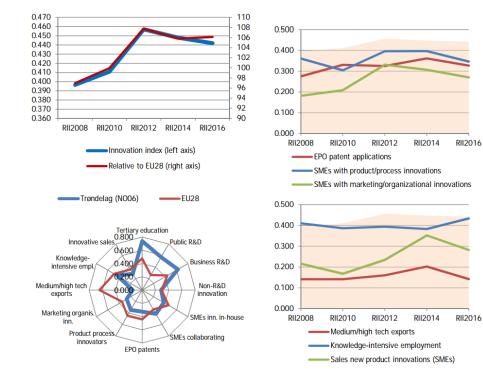








#### Trøndelag as a strong innovator



*Source : Regional Innovation Scoreboard 2016* 



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### " Critical research mass"

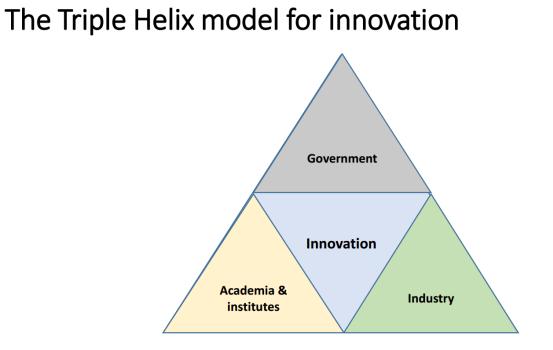








## Regional innovation system











The concept of Triple Helix Systems of innovation (Ranga and Etzkowitz, 2013) was recently
introduced as an analytical framework that synthesises the key features of Triple Helix interactions
into an 'innovation system' format, defined according to the systems theory as a set of
COMPONENTS, RELATIONSHIPS AND FUNCTIONS.

#### COMPONENTS

- R&D and non-R&D innovators;
- "single-sphere" and "multi-sphere" (hybrid) institutions;
- individual and institutional innovators.

#### RELATIONS

- technology transfer,
- collaboration and conflict moderation,
- collaborative leadership, substitution,
- networking.

FUNCTIONS - a set of activities in the Knowledge, Innovation and Consensus Spaces







## Two worlds

- The first world includes the "movers" and is dominated by the NTNU / SINTEF
- The second world includes the vast majority of companies, mostly in traditional sectors, of very small size and with limited or no links with the first world
  - HiST and HiNT, and in particular the former one, are developing some interaction with these companies, but these are rather limited in terms of R&D and innovation







# Innovation policy vs regional policy

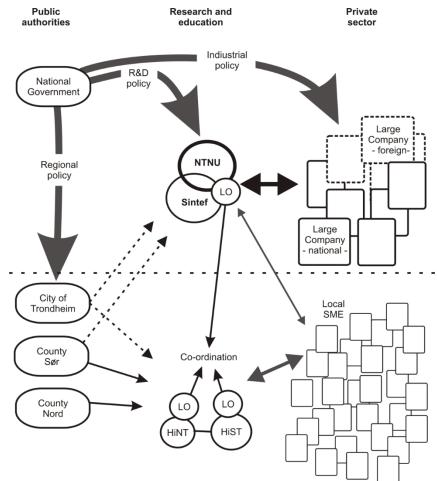
- The government of Norway and also its regions have explicitly aimed to become more active in the field of innovation. At the same time, Norway has a long tradition in regional policy.
- The explicit objective to promote sustainable regional development is deeply rooted in Norwegian socjety.
- Framework set up both on national and regional level







## Eco-system of Innovation in Trøndelag



#### Source: Sotarauta M. Trøndelag OECD peer review









- Founded by Norwegian University of Science and Technology (NTNU) in 1950. Close cooperation.
- Vision: Technology for a better society
- Focus on applied R&D for industrial development and commercialisation
- Execute more that 4000 projects every year. 90% commercial contracts. Participates in more then 50 EU projects and networks. 15% of income from international projects.
- Experience from operates national technology transfer program (TEFT) and Enterprise Europe Network (EEN) in Norway.
- Scandinavia's largest independent R&D institution with 2100 employees.
- Non-profit organisation were all profit is reinvested in research scientific equipment and competence development.
- <u>www.sintef.com</u>

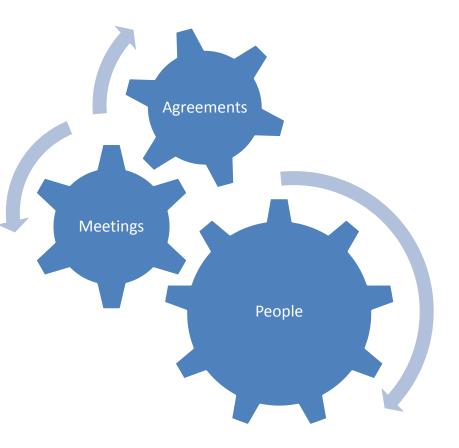






## NTNU – technology transfer office

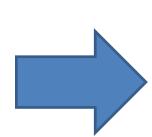
NTNU Technology Transfer AS works on creating value out of research results and good ideas from the Norwegian University of Science and Technology (NTNU) and the **Central Norway Regional** Health Authority. The aim is that these shall reach the market in the form of new products or services that benefit society.





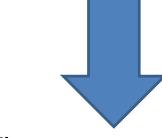


- Uniqueness
- Demand
- Team
- Belief
- Support



### Idea assesment

#### Evaluation of a potetntial



- Time
- Financing
- Patenting
- Licence agreement
- Spin offs







## SINTEF TTO's

- SINTEF TTO's main activities are related to developing commercial concepts from relevant research results, and commercialising these either through selling technology, licensing or through establishing new spin-off companies. During the last ten years, about 80 new technologies have been commercialised through spinn-offs or licensing.
- SINTEF TTO is a wholly owned subsidiary of SINTEF, with corporate responsibilities of operating the SINTEF Innovation Concept, in joint effort with top management of SINTEF's business areas. SINTEF TTO is also responsible for managing Intellectual Property Rights (IPR), and is hence IPR-owner on behalf of SINTEF. SINTEF TTO also manages SINTEFs venture portfolio and seed capital investment activity.





## LEIF EIRIKSON NYSKAPING

• Leiv Eiriksson Innovation AS is a provider of expertise, capital and networking for entrepreneurs and startups throughout Central Norway.

Since 1994 we have been active in the creation of new businesses and rated over 1400 ideas. Many of these businesses have undergone our training courses, received counseling or had to stay in our incubator; a development with office facilities and access to expertise.

LEN has in this period actively invested in over 70 companies and is currently a shareholder in 30 companies. It has in these companies invested NOK 0.5 billion. Where LEN has contributed NOK 125 million. Investment capital.







HVA TRENGER DU?

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#### HVA TRENGER DU?



LEN





Dagpenger i etableringsfase 🕨



OM LEN

-

KONTAKT

Kurs for utvikling av forretningsidé 🕨



Kontorplass i utviklingsmiljø 🕨



Tidligfasekapital for vekstbedrift >



Kompetanse for å ekspandere 🕨



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- TNU School of Entrepreneurship (NSE) is a two-year master degree program offered by the Department of Industrial Economics and Technology Management at NTNU, with a focus on business development and technology-based entrepreneurship.
- NSE's vision is to educate the best business developers in the world, and the purpose is twofold:
  - To provide a state-of-the-art educational program to students seeking a career within entrepreneurship and commercialization of technology.
  - To contribute to the commercialization of ideas from the technology community at NTNU and other innovation communities.





## VRI Trøndelag

- In VRI program focused on the combination of research-based and experience-based knowledge. For we know that companies that manage to combine research-based and experience-based knowledge has high degree of innovation.
- Both companies and R & D institutions have researchbased and experience-based knowledge of our employees, but the proportion of research-based knowledge is naturally larger in an R & D environment.
- The goal of VRI Trøndelag to strengthen interaction between Trøndelag enterprises and relevant research environments. We believe that good interaction





### **VRI Stakeholders**









## Innovating mode

- Competence brokers
- Ideesøk
- Network projects
- Expert in the team
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## IDN is a spin-off from SINTEF, the largest research institute in Scandinavia We are a team with long experience in international project development and management In projects we engage experts from SINTEF/NTNU and from other organisations both in Norway and locally We focus on business oriented projects contributing to sustainable local economic development Since 2010 we have participated in more than 20 **EEA/Norway Grants.**







### DZIĘKUJĘ TAKK THANK YOU







INTERNATIONAL DEVELOPMENT NORWAY



