



Joint Research Centers: A platform for scientific cooperation

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What does the signing of an agreement on a JRC mean?

- Stepping up the cooperation from networking activities to formalized, organized and institutionalized cooperation
- The researcher-to-researcher/research-group-to-research-group contact and cooperation has been given an institutional setup
- The researcher-to-researcher collaboration is the most important element in the cooperation. Without the mutual benefit from academic cooperation there will be no JRC
- But – the JRC scheme will (hopefully) be a supportive one, leading to political visibility, institutional backing and funding of activities

The JRC context

Agreement between the Government of the Kingdom of Norway and the Government of the People's Republic of China on Cooperation in the fields of Science and Technology, signed in Beijing November 5th, 2008

Memorandum of understanding on Cooperation on Education between The Ministry of Education of the People's Republic of China and The Ministry of Education and Research of the Kingdom of Norway, signed in Beijing November 3rd, 2008

China is a prioritized country in Norwegian international research, innovation and educational cooperation

- In the Norwegian White Book on Research
- The Norwegian Strategy for Cooperation with China: Research, innovation and educational cooperation is a key area for cooperation
- The CHINOR programme in the Research Council of Norway



regjeringens kina-strategi
挪威政府的“中国战略”
the government's china strategy



China is a prioritized country to NTNU

- NTNU's strategy plan for internationalization 2011 – 2014 (adopted by NTNU's Board August 25th 2011) gives priority to cooperation with China
- China is the only geographical priority in the strategy in addition to cooperation in Europa
- And - the Joint Research Centres is a key instrument in the development of cooperation with Chinese universities in the plan



- Kina løftes fram



Vil ha mer. Rektorene Torbjørn Digernes og Zhang Jie ved NTNU og Jiao Tong signerer samarbeidsavtale våren 2010. Nå vil Digernes ha mer og sterkere samarbeid med Kina. FOTO: TORE ØKSHOLEN

Samarbeidet med universiteter i Norden, India, Japan og utviklingsland blir ikke prioritert i NTNUs nye internasjonale handlingsplan. Universitets aller viktigste samarbeidspartnere i årene som kommer, ligger i Kina og Europa.

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NTNU gir to områder hovedprioritet når det internasjonale samarbeidet skal styrkes de neste tre årene: Deltakelse i det europeiske utdannings-, forsknings-, og innovasjonsområdet, samt samarbeid med

“Innen 2014 skal minst 40 prosent av NTNUs gradsstudenter oppholde seg i minst ett semester ved et godt

Politikk



Norden tones ned - Kina løftes fram



Gløymde fagpersonane i omstillingsprosessen



Selvsensur ved danske universiteter



- Vi skal bruke vår skaperkraft



- Akademikere må ta ansvar

» Politikk

- Minneord for Tomas Hågg
- Oppdaget ny havstrøm
- Hva er prisen på dette hodet?

Uniform

- Full støtte til avisredaktør
- Framifrå UiO-senter gjer det knallgodt
- Siri Hatlen: Me gløymde fagpersonane
- Viktig med et oppdatert nettsted
- UiO-forskere på svarteliste

Studentaviser

Under Dusken

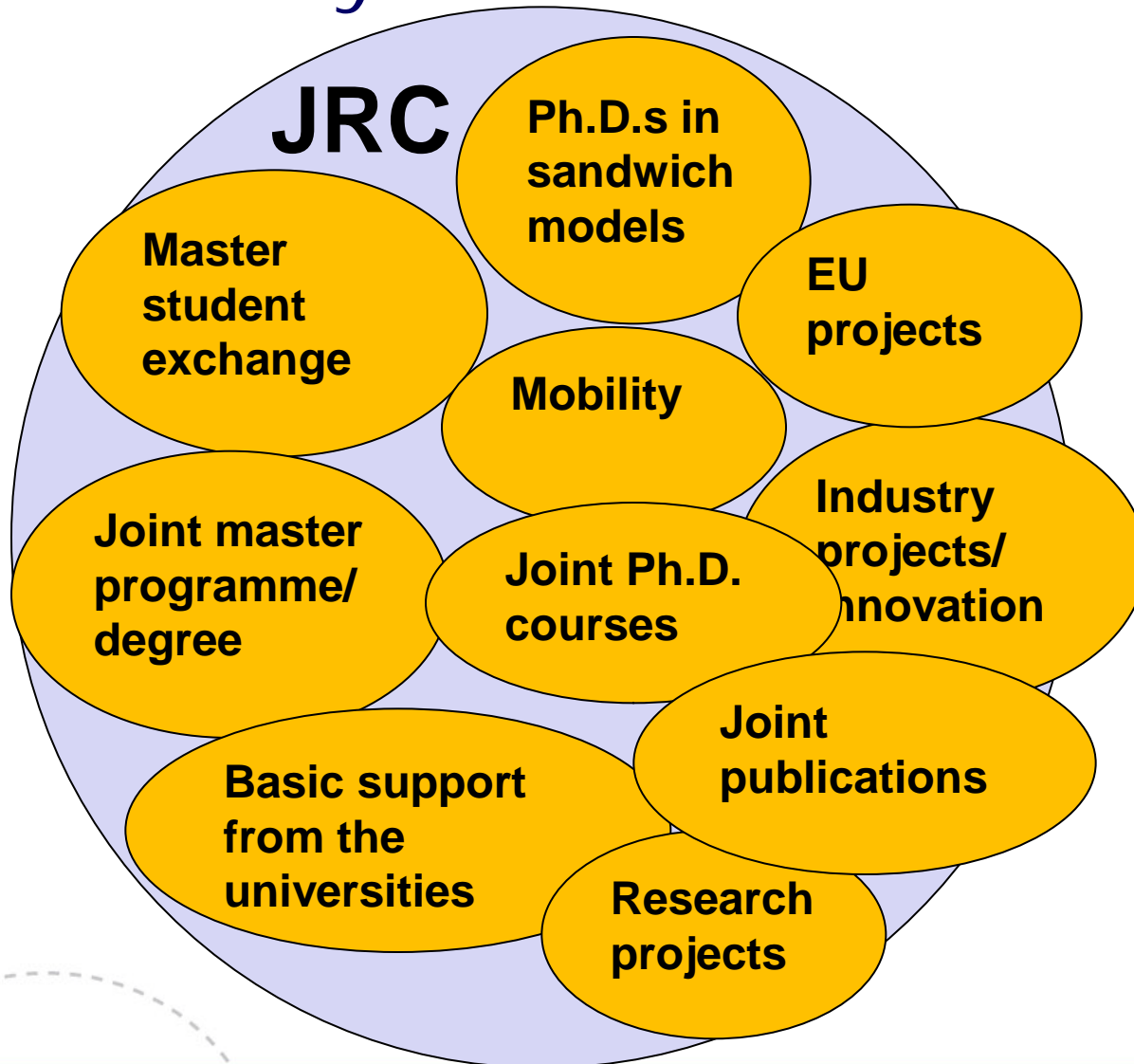
- Sensor må ha trillet terning
- Tilfredstillende løsning
- Pstereo: Energiske ratter
- Verdens beste i Boogie-Woogie
- VM for swingende

Universitas

- Juksesvensker
- Studentboliger i stedet for Munch-museum
- Kræsjskurs i studieteknikk
- Studenter, foren eder!
- Opprørets skole

Studvest

Developing the JRCs - brick by brick



The JRCs should be recognized both in China and in Norway as well as internationally as a key actor driving the knowledge development in the energy field.



NTNU
Norwegian University of
Science and Technology

Joint research projects and joint publications

- Identify areas of mutual interest and strengths and establish collaborative research projects in these areas
- Funding should be sought from different sources
- The cooperation in the JRCs should lead to joint publications in leading international journals
- A plan for joint publishing could be developed
- A JRC working paper series could be considered

Research staff exchange and mobility

- Post docs could be offered shorter or longer research stays at the other institution
- Sabbaticals could be spent at the other institution
- Funding through the national and the university support systems for sabbaticals should be sought
- A plan for shorter stays for researchers / guest researchers should be developed

Ph.D cooperation

- A key element of the JRCs
- SJTU and NTNU have already allocated 6 Ph.D.-positions to the JRC
- Ph.D.-candidates should have research stays at the other institution and have supervisors from both institutions
- Joint Ph.D.-courses and yearly(?) summer schools could be considered
- **Joint announcements of joint Ph.D.-positions is a strong statement from the JRCs**

Student exchange and educational cooperation

Joint master supervision:

- Students should have one professor from each institutions as supervisors.

Master student mobility scheme:

- For example 3 master students each way each year for 6 months to work on master thesis, attend courses and receive supervision.
- Each institution will fund their own students.
- Guaranteed academic benefit and practical support.

Joint master programme:

- Degree from home institution, but students/ groups spend half a year at the other institution taking course and receiving supervision.

Joint master degree:

- Degree from both institutions. Complicated to set up, but would be a very fashionable degree for students to hold.

Industry participation

- The research groups at SJTU and NTNU have a broad range of industrial partners
- Relevant industrial partners for the JRCs in China and in Norway should be involved
- A plan for industrial involvement should be laid out

National funding possibilities in Norway

- The Research Council of Norway is the main public funding source for research in Norway
- All thematic programmes in the Research Council of Norway is not only open to international cooperation but is strongly encouraged
- Joint applications for research projects to the RCN programmes should be considered
- The targeted CHINOR programme - energy is a priority in the programme

3 mobility schemes

NSFC mobility programme with China

- Funds Norwegian researchers **to China** in the natural sciences.
- The sending country may apply for an international travel subsidy and the receiving country for maintenance allowance.
- Usually **shorter stays**, up to one month's duration, yearly quota of 12 months.
- Applications are processed on a first come, first served basis.

Norwegian Government Scholarships to Chinese nationals

- 10 **long-term** scholarships (up to 10 months) **to Norway** for students and younger researchers from China, for stays at universities or research institutes.
- Open to all areas of research, the selection of candidates carried out by China Scholarship Council (CSC). The CSC is invited to nominate ten candidates
- Nomination deadline: 1 March every year.

Specialist exchange with China

- **Short-term** scholarships, visiting scholars **from China**, all fields covered.
- Cover accommodation and daily allowance up to three weeks.
- Travel expenses to and from Norway must be covered by the visitor.
- Applications are accepted on an ongoing basis.

Funding possibilities in the EU

- EU's framework programme 7 (FP7) (2007 – 2013) is the worlds largest research programme (50 billion Euro)
- FP7 supports collaboration with countries outside of Europe as well
- The international dimension in FP7 is strongly encouraged
- Chinese partners can participate in all FP7 project
- There is a bilateral research agreement between EU and China encouraging cooperation in research

Three EU programmes of special relevance to the JRC

- The Energy programme: Chinese partners as one of many partners in targeted calls.
- The People programme (mobility programme): Several bilateral instruments should be considered.
- The ERC grants: Frontier research. Applications from individual researchers with a European host institution.

The EU Energy Programme

- ACTIVITY ENERGY.1: HYDROGEN AND FUEL CELLS
- ACTIVITY ENERGY.2: RENEWABLE ELECTRICITY GENERATION
- ACTIVITY ENERGY.3: RENEWABLE FUEL PRODUCTION
- ACTIVITY ENERGY.4: RENEWABLES FOR HEATING AND COOLING
- ACTIVITY ENERGY.5: CO2 CAPTURE AND STORAGE TECHNOLOGIES FOR ZERO EMISSION POWER GENERATION
- ACTIVITY ENERGY.6: CLEAN COAL TECHNOLOGIES
- CROSS-CUTTING ACTIONS BETWEEN ACTIVITIES ENERGY.5 AND ENERGY.6 (Activity ENERGY.5&6)
- ACTIVITY 7: SMART ENERGY NETWORKS
- ACTIVITY ENERGY.8: ENERGY EFFICIENCY AND SAVINGS
- ACTIVITY ENERGY.9: KNOWLEDGE FOR ENERGY POLICY MAKING
- ACTIVITY ENERGY.10: HORIZONTAL PROGRAMME ACTIONS

Applications from European consortia.

The EU People mobility programme/ Marie Curie Actions

- Incoming International Fellows: From China to Norway
(Deadline August 2012)
- Outgoing International fellows: From Norway to China
(Deadline August 2012)
- IRSES: International Research Staff Exchange Scheme
(Deadline January 18, 2012) !
- IAPP: Industry Academia Pathways and Partnership
(April 2012)

The EU Ideas/ERC programme

- Funds basic, ground-breaking, high-risk-high-gain research
- Applications from individual researchers accepted, with a European host institution
- All nationalities can apply
- Excellence is the sole criteria
- Starting Grants for Younger Researchers
 - 2 – 12 years after Ph.D.
 - Deadlines every Autumn
- Advanced Grants for Established Researchers
 - Outstanding track record last 10 years
 - Deadlines every Spring

Summing up

- The JRC as a helpful setup which allow you to develop the scientific cooperation you want to engage in
- You should use the JRC strategically to get support both nationally and locally
- A wide range of instruments and funding sources should be utilised to develop the collaboration
- The inclusion of industrial partners is especially important

Most importantly: *Each of the 5 scientific areas in the JRC should identify the short-term and long-term activities using different instruments and funding schemes to build the cooperation brick by brick*

JRC area XX – plan for 2011 - 2012:

2011

- Establish project for pairs of ph.d.-candidates
- Start the development for a joint master programme
- Development of IRSES application, deadline January 2012

2012

- Summer school for ph.d.-candidates from both institutions
- 3 Master students each way for ½ year
- August 2012: Application for EU People 1 IIF and 1 OIF
- Autumn 2012: 1 application for ERC St. gr from SJTU to NTNU
- Sabbaticals both ways
- Applications for mobility schemes – research councils
- Application for the CHINOR programme
- Workshop with industrial partners to identify areas of cooperation
- Joint articles
- etc



Thank you for your
attention!