CROSSING BORDERS, TRANSCENDING BOUNDARIES: RESULTS FROM THE CROSS-CULTURAL ADAPTATION OF THE INTERDISCIPLINARY STUDY

Anne Dijkstra, Mirjam Schuijff (UT)

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*Shadrack Mkansi, Jabu Nukeri (SAASTA)*

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OUTLINE

- Overview and study design (Anne Dijkstra)

- Case China (Yan Shi)

- Case South Africa (Shadrack Mkansi)

- Conclusions (Mirjam Schuijff)

- Panel discussion

CULTURAL ADAPTATION STUDY

- Different contexts enrich the view on RRI

- Two cases: China and South Africa

- Feeds into Implementation Roadmap

RRI IN CHINA AND SOUTH AFRICA: CULTURAL ADAPTATION REPORT

Deliverable 3.3

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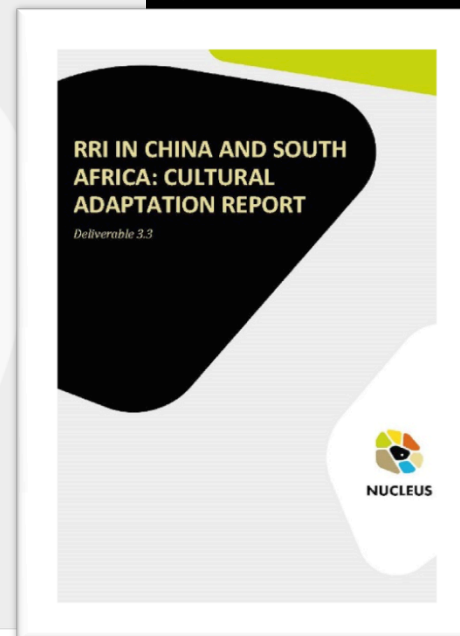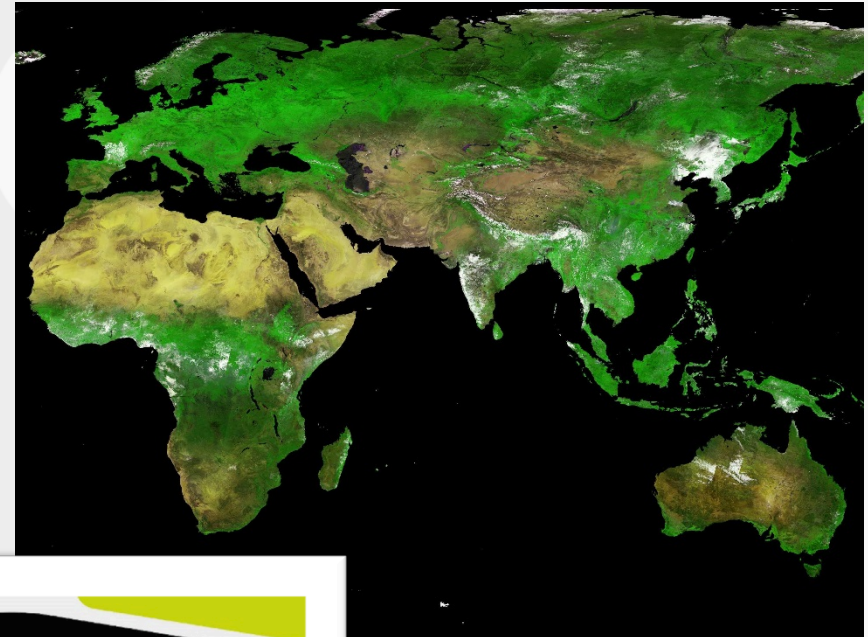
INVOLVED PARTNERS

- China – **CRISP** = China Research Institute for Science Popularization

- South Africa – **SAASTA** = South African Agency for Science and Technology Advancement

- Netherlands – **UT** = University of Twente

- Collaborative effort

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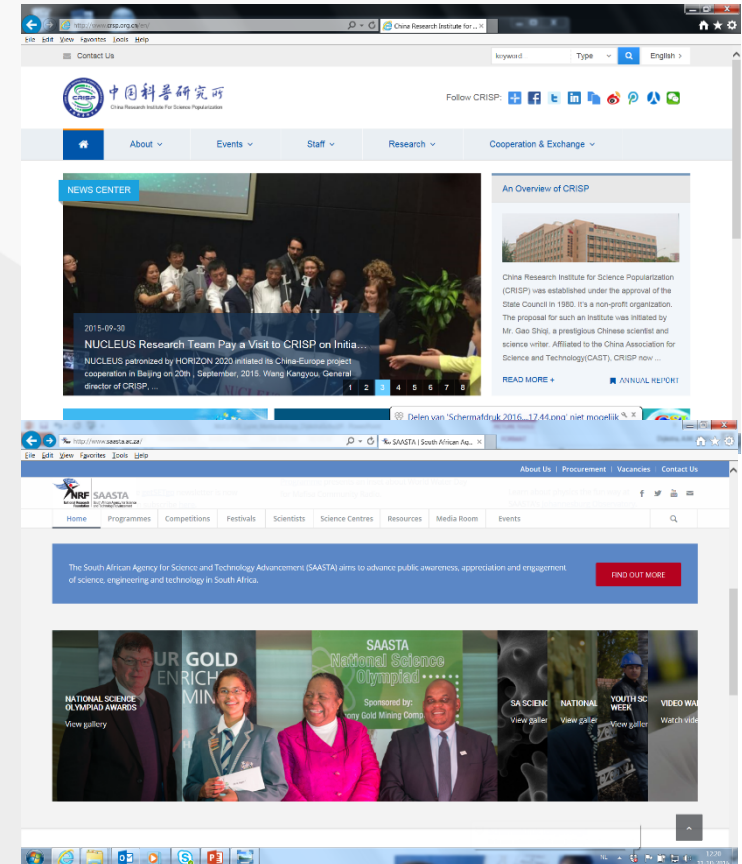
RESEARCH QUESTIONS

- How are RRI and other relevant concepts implemented in international contexts?

- What are barriers and successes to the future implementation?

- What can be recommended for the future implementation of RRI in institutions?

METHODOLOGY

- **Multi-method approach –** enables to use a rich variety of sources which leads to more insightful understandings and increased diversity (Greene et al, 2001)

- **Qualitative**

- Same design in both cases

- **'Literature' studies**: e.g. academic literature, reports, policy documents, books, presentations, field trip reports, personal communications, emails

- **Interviews**: 13 in South Africa, 30 in China

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INTERVIEWS

- About one hour, **semi-structured**

- Questions were **tested and adapted**

- Background; challenges for research and society; engagement; impacts of research on society; governance of research; changes foreseen in practices and policies; responsibilities; support

- **What is necessary for Europe to realise RRI?**

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USED DEFINITIONS OF RRI

- *Von Schomberg* (2013, p.19) = transparent, interactive process, **mutually responsive**

- *European Commission* = **inclusive approach**, align process and outcomes, anticipating implications and societal expectations
  - Five thematic keys – Gender, Open Access, Science Education, Engagement, Research Ethics
  - Three O's – open to science, innovation, the world

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ANALYSIS AT DIFFERENT LEVELS

- Conceptual, governmental, institutional, individual

- Looking for striking aspects in the 'themes', adapted from the EU keys

- Translated to recommendations for governments, institutes and individual researchers

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ADAPTED THEMES

- **Equality** – e.g. including ethnic groups, equal access to universities

- **Science education, outreach and open access** – innovation requires science education and outreach, access to information

- **Stakeholder and public engagement** – to bring together, exchange views

- **Ethics and broader impacts** – moral considerations, impacts to lives, society, environment

CASE CHINA

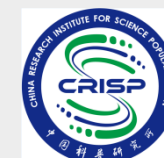*YAN Shi (China Research Institute for Science Popularization, CRISP)*
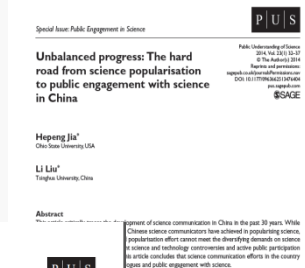
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CHINA

Case description based on:

- Literature findings from various sources

- Interviews (n=30), face-to face, 11 females, 19 males, 22 from universities, 8 from institutes, age between 30-64
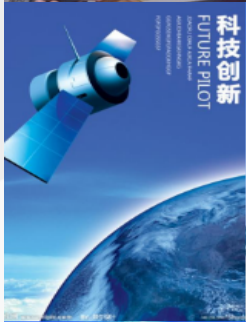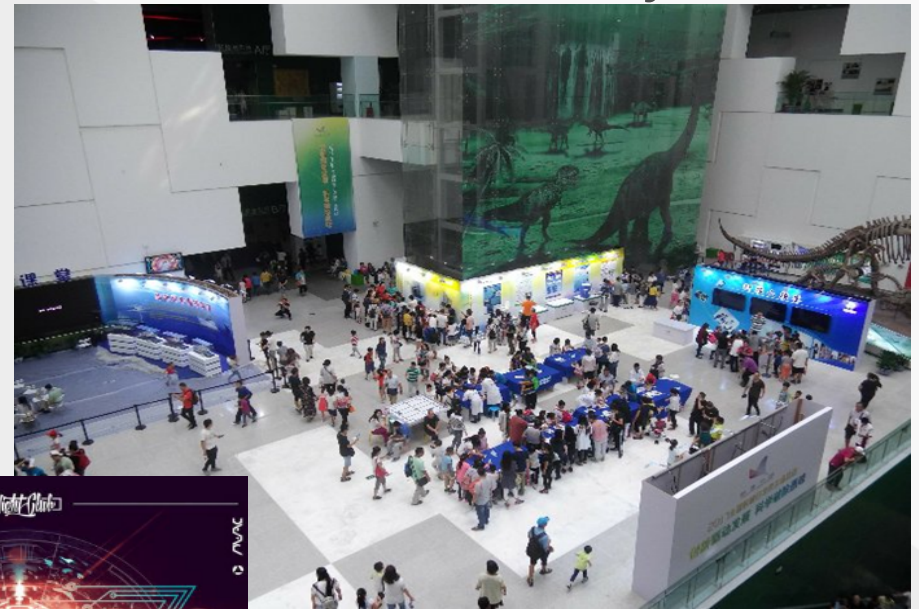
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IN CHINA

- RRI reflected in social responsibility
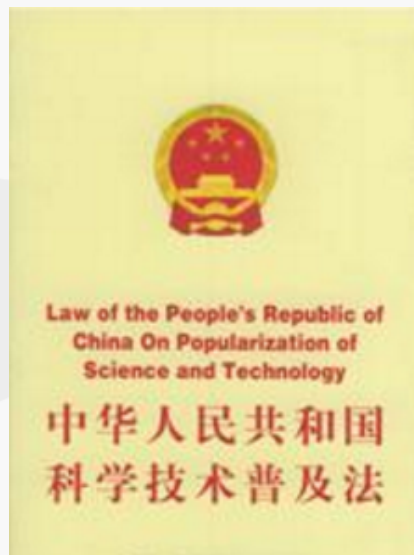- Strong emphasis on innovation via scientific literacy and science popularization

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AT THE GOVERNMENTAL LEVEL…

- At the governmental level, popularization of science and technology is part of a national strategy which is reflected in various policy documents.

Law of the People's Republic of China On Popularization of Science and Technology

中华人民共和国
科学技术普及法

2002

Outline of the National Scheme for Scientific Literacy

全民科学素质
行动计划纲要

(2006—2010—2020年)

科学普及出版社
Popular Science Press
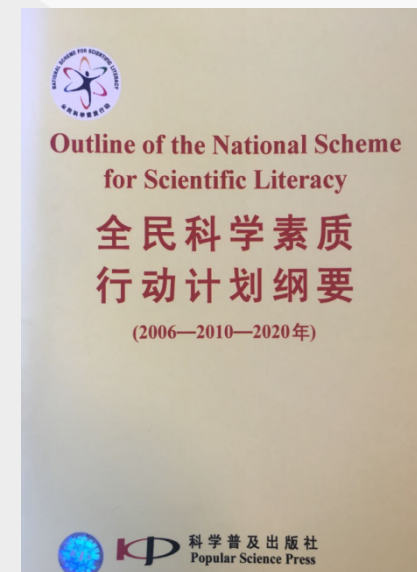
2006

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AT THE INSTITUTIONAL LEVEL...

- Science education takes place both inside and outside schools.

- Many organizations have their own bureaus or departments for science popularization and communication.

- ......

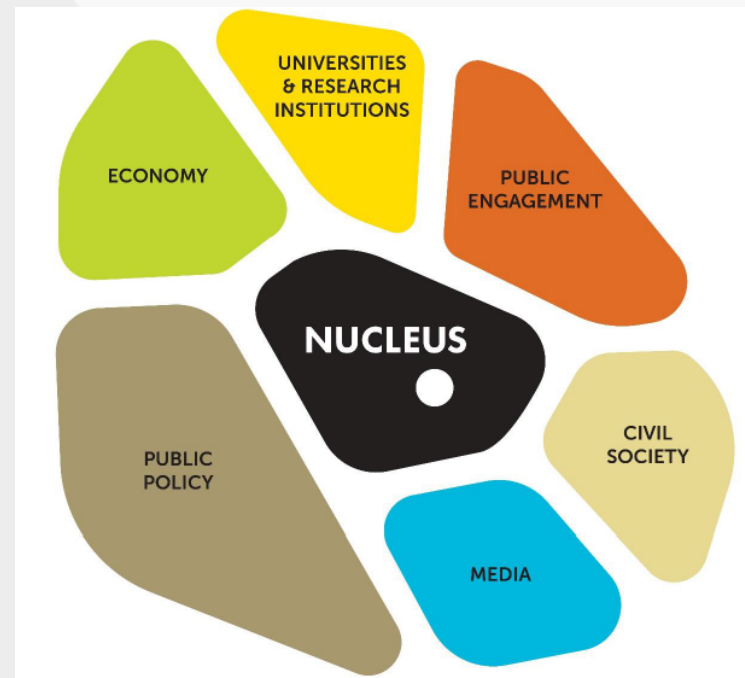UNIVERSITY OF TWENTE.

AT THE INDIVIDUAL LEVEL…

- At the individual level, topics where (public) debate is 'on the rise' – GM food, air pollution (sustainability)……

- Some increasing awareness of need for research ethics, engagement, impacts

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CHINA

- At all levels 'practices' found to foster social responsibility

CASE SOUTH AFRICA

Shadrack Mkansi (SAASTA)

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SOUTH AFRICA

Case description based on:

- Literature findings from various sources

- Interviews (n=13), via Skype, 12 male, 1 female, age between 38-75, leading positions in universities and science centres

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IN SOUTH AFRICA

Innovation as a means to advance the economy and lives of people

RRI reflected in many aspects

- Equality

- Science education and outreach

- Community oriented research

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AT THE GOVERNMENTAL LEVEL

- Responsive to society, e.g. research policy for improving lives as well as fundamental research projects

- Indigenous knowledge systems policy

Challenges

- Available budget

- Equal access > e.g.

Fees must fall movement

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AT THE INSTITUTIONAL LEVEL

- Science education and outreach via e.g. science centres, nation-wide programmes, SAASTA > raise enthusiasm for science

- Entrepreneurial attitudes for finding budgets

- Open access platform

Challenges

- Distance to rural areas

AT THE INDIVIDUAL LEVEL

- Skilled in making most out of budget

- Some researchers are actively engaged

- Striving for open and trusting relationships

- E.g. Study to 'kougoed plant' shows respect for local knowledge

- More formal recognition of public activities

COMPARISON AND CONCLUSIONS

Mirjam Schuijff (UT)

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PRACTICES
AT THE GOVERNMENTAL LEVEL

- Innovation and knowledge economy as policy objectives

- Challenges regarding different levels of science literacy and inclusion, affecting research and universities.

- China: science education prominent

- South Africa: science engagement, indigenous knowledge

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AT THE INSTITUTIONAL LEVEL

- Large efforts for science education

- Rural communities are literally far away → affects efforts and equal access

- Institutions do not have formal recognition systems for RRI aspects

- System for research ethics becoming important in China, in place in South Africa

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AT THE INDIVIDUAL LEVEL

- Engagement and science education not always considered part of their job > acknowledge

- Support and training wanted

- Role models can stimulate or facilitate RRI

CONCEPTUAL LEVEL

- RRI not labelled as such; 'RRI' not well-known

Yet, in both countries:

- Many efforts can be seen as RRI-related

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WHAT IS NECESSARY FOR EUROPE TO REALISE RRI?

- Europe can learn from international perspectives.

- Europe can design new strategies to take society along.

- Set up exchange programmes

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PANEL DISCUSSION

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QUESTIONS?

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STATEMENT 1

The label RRI is necessary for successful implementation

- Agree

- Disagree

- Sometimes

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WHAT CAN WE LEARN FROM THE FINDINGS?

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HOW CAN WE USE THESE FINDINGS FOR OUR PRACTICES?

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THANK YOU!

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