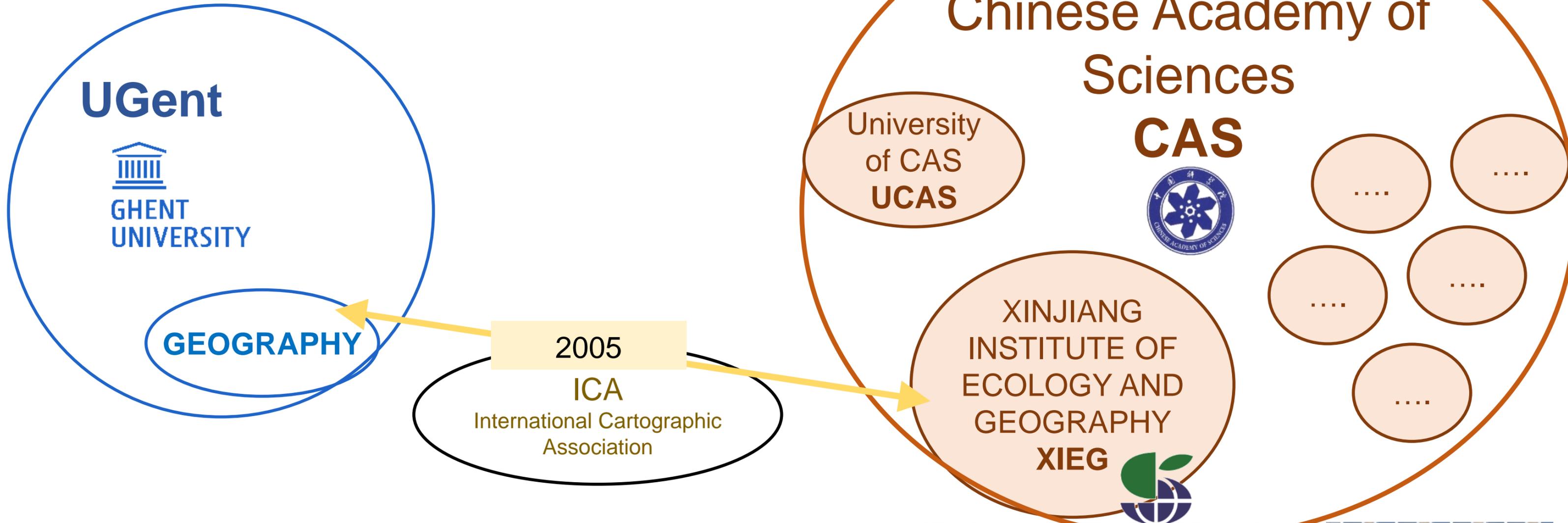


FROM JOINT RESEARCH TO JOINT LAB AND DOUBLE PHD'S

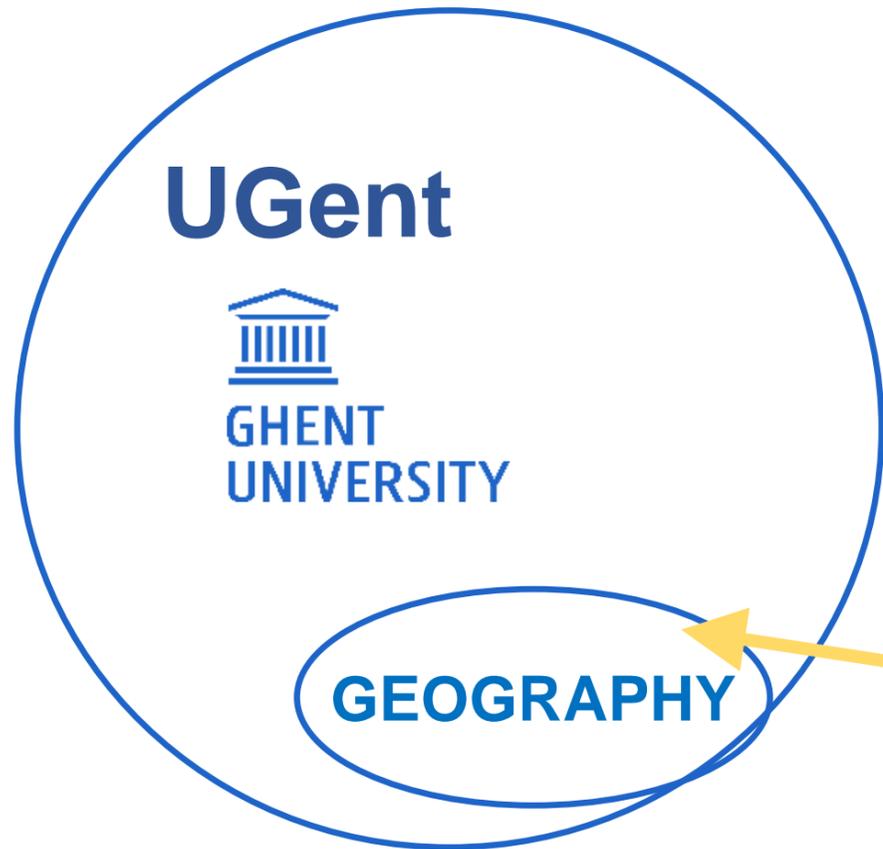
Philippe DE MAEYER



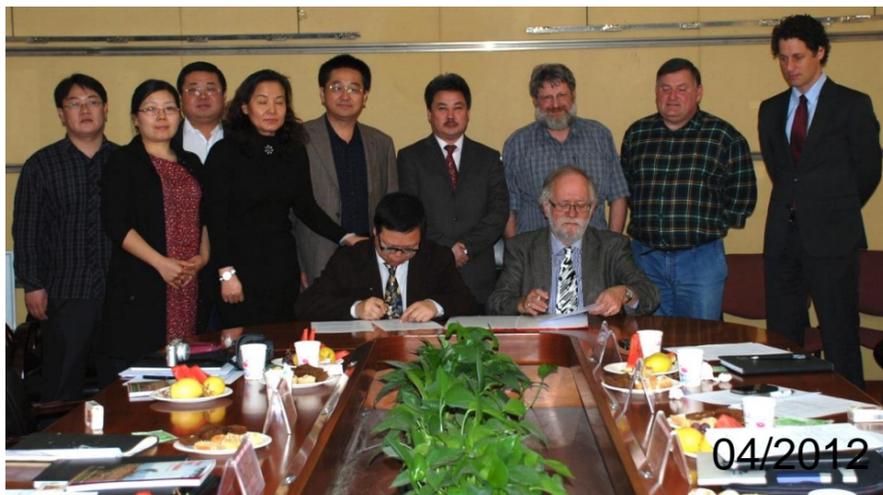
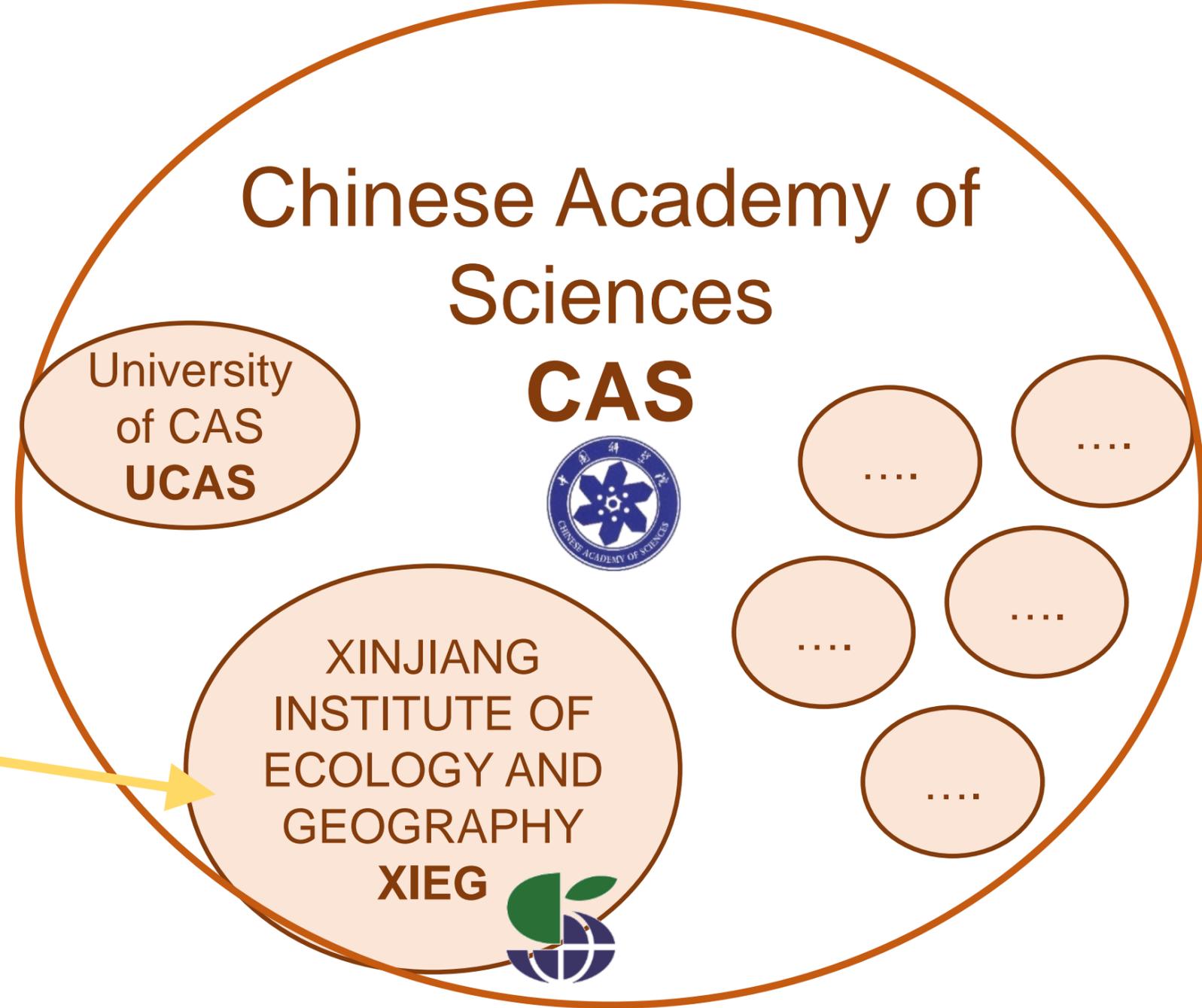
NETWORK



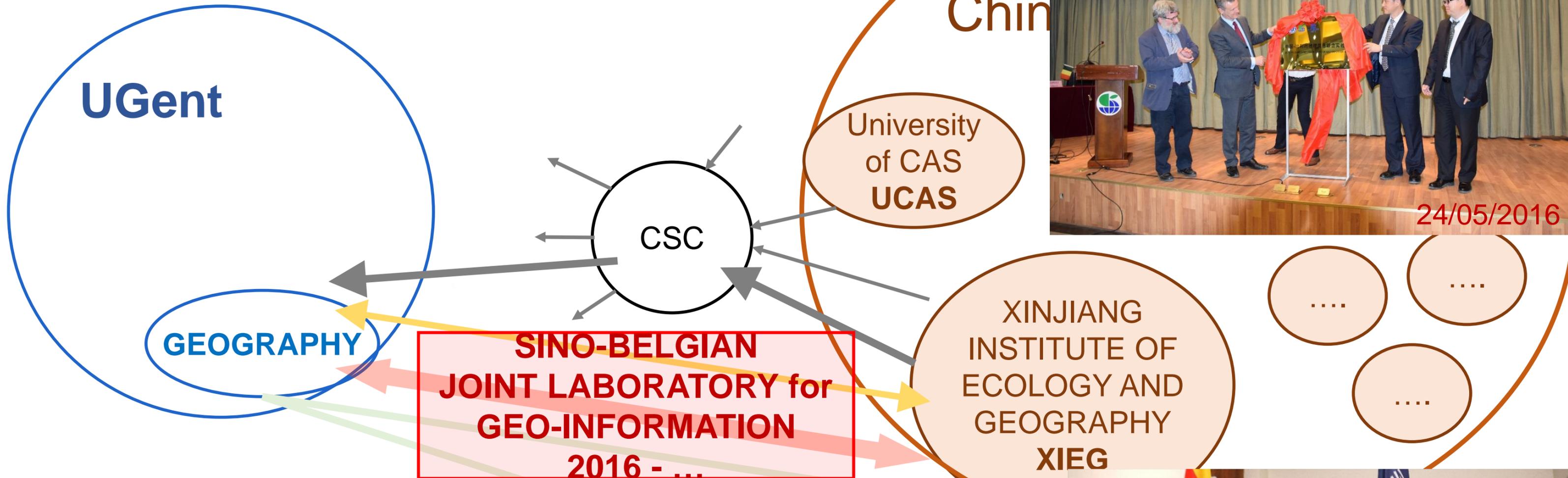
NETWORK



**cooperation
agreement**
2007 – 2012
2012 – 2017
2017 – 2022
2022 – 2027



NETWORK



The purpose of the Joint Lab is to conduct academic exchanges and research cooperation in science and technology innovation and to strengthen the cooperative relationship between the Parties. The research topics will mainly focus on geo-information in the fields and disciplines of **climate change, sustainable development, geo-archeology, environment, ecology, geography and geology.**

NETWORK

Memorandum of International Consortium for Ecosystems monitoring and Management in response to Climate Change in Central Asia
XIEG, UGent and 19 others
2017-

MoU
UGent - UCAS
2017- 2022 -

cooperation agreement
CSC
2007 - 2012
2012 - 2017
2017 - 2022
2022 - ...

**SINO-BELGIAN
JOINT LABORATORY
for GEO-INFORMATION
2016 - 2021- ...**

agreement
double PhD
2017 - 2022 - ...

tripartite MoU
2014 - 2019

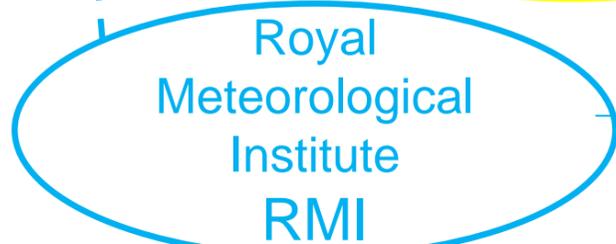
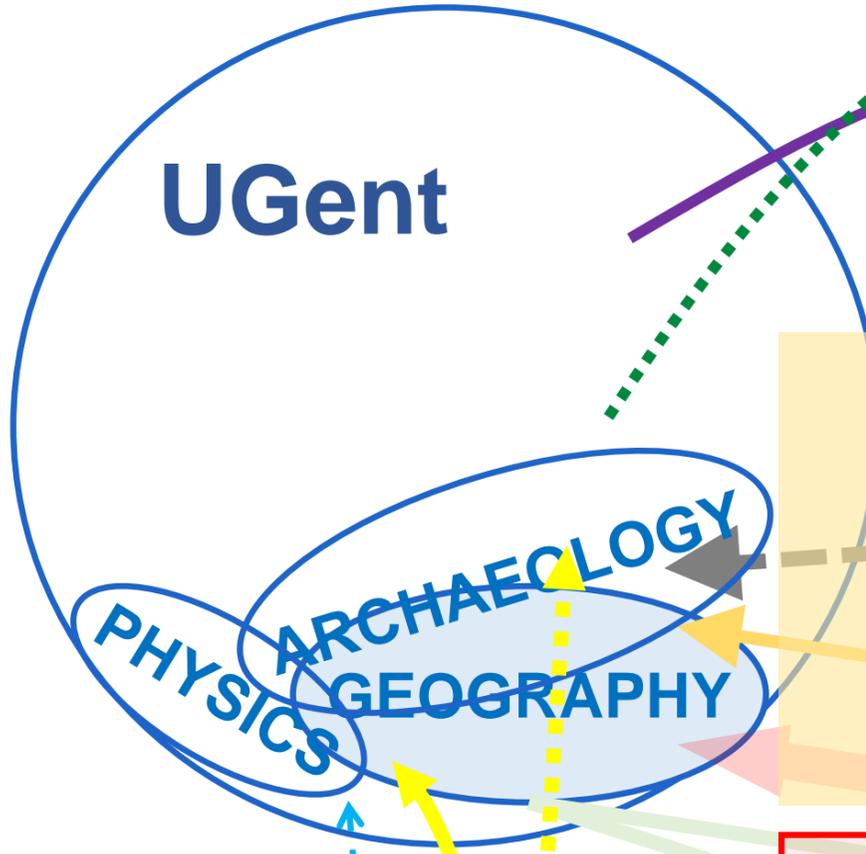
TURPAN
HERITAGE

Chinese Academy of Sciences CAS

University of CAS
UCAS

XIEG - CAS
2016 - 2018
2019 - 2021
2022 - 2024

XINJIANG
INSTITUTE OF
ECOLOGY AND
GEOGRAPHY
XIEG



NETWORK

Collaboration based on 3 pillars:

- common research topics
- exchange of staff and students, incl. teaching
- ***Sino-Belgian Joint Lab for Geo-Information***
中国-比利时地理信息联合实验室

Strengths and Opportunities:

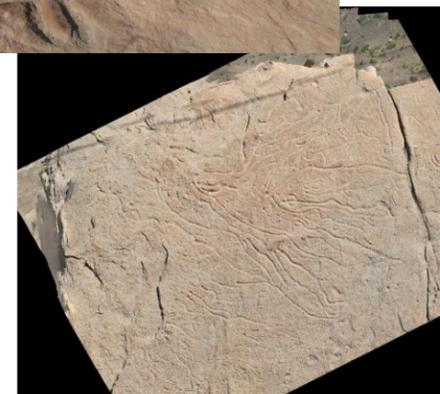
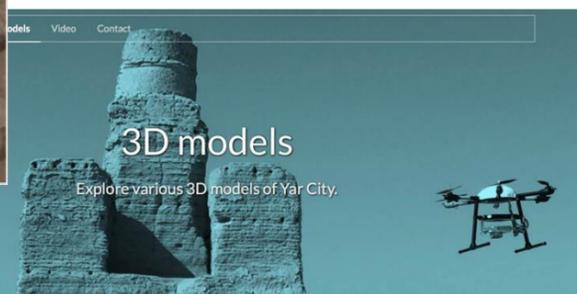
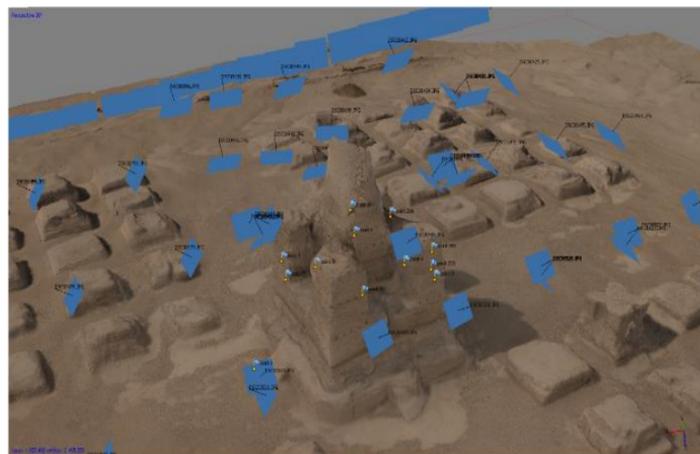
- complementary competences
- personal understanding
- highly ranked institutions and labs
- existing networks of institutes
- OBOR, Silk Road Initiative, ...
- long term collaboration



RESEARCH THEMES

1. modelling and understanding heritage issues along Silk Road. *(UGent, Dept. Geography and Dept. Archaeology)*

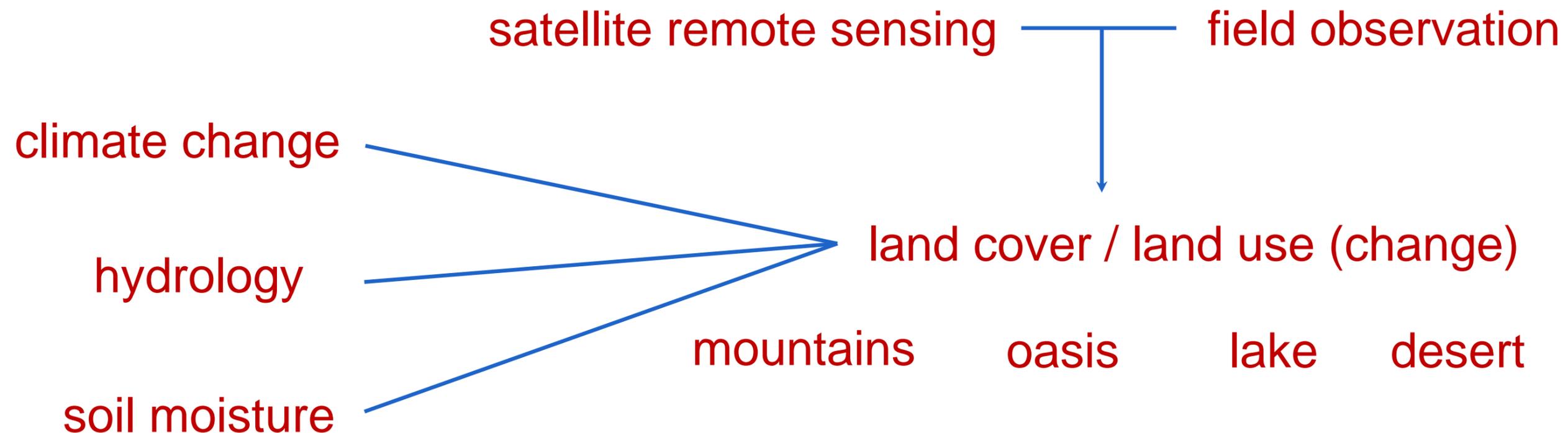
- 3D&4D GIS modeling for World Heritage along Silk Road
- petroglyph map study
- changing water landscape
- ...



RESEARCH THEMES

2. climate change and impact on land use/cover, hydrology and soils in Central -Asia

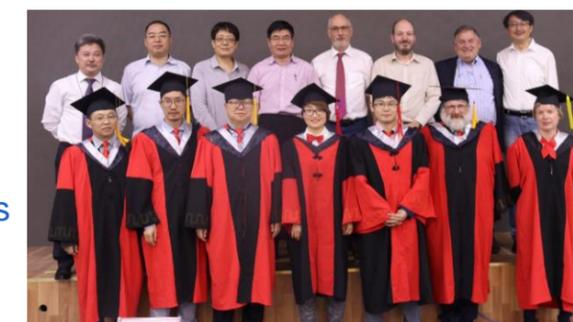
(UGent, Dept. Geography and Dept. Physics) + RMI



OUTPUT

– double PhDs: defended 18 (January 2022)

- Gonghuan **FANG**, PhD May 2016, Impact of climate variability on hydrological processes in the Kaidu River Basin (North-West China)
- Jiao **LIU**, PhD May 2017, Hydrological processes and impacts of climate change in the alpine catchment in the arid region - A case study on the Yarkant River basin in Karakoram
- Xiuliang **YUAN**, PhD May 2018, Common land model improvements and its application for estimating evapotranspiration in Xinjiang, China
- Miao **ZHANG**, PhD May 2018, A study on water-heat patterns and regional climate of mountain- oasis-desert system in north Tianshan Mountains based on the WRF model
- Hao **GUO**, PhD May 2019, Study of drought characteristics in the arid zones of Central Asia over the last 50 years.
- Min **LUO**, PhD May 2019, Defining spatiotemporal characteristics of climate changes trends in Central Asia and its impact on water resources in selected river basins.
- Yunqian **WANG**, PhD May 2019, Characterizing soil moisture variability for prediction of drought and precipitation in Xinjiang, China.
- Liangliang **JIANG**, PhD May 2020, Monitoring land degradation and assessing its drivers in Central Asia.
- Lu **ZHANG**, PhD May 2020, Structure and Optimization Strategies of the Air Passengers' Transport Network in "the Belt and Road" Region .
- Liangzhong **CAO**, PhD May 2020, The Spatiotemporal Distribution of the Three-Dimensional Atmospheric CO2 Concentrations and the Controlling Factors at Global and Regional Scales.
- Yongchao **DUAN**, PhD May 2020, Study on flood mechanisms and processes under complex climatic conditions in the Kunlun Mountains.
- Peng **CAI**, PhD May 2020, The Climatic and Ecological Effects of Modern Oasis Evolution in the North Tianshan Mountains.
- Tao **PAN**, PhD May 2020, Evolution of the cropland structure and effects on grain production and land surface thermal environments in the Sanjiang Plain, China.
- Tao **YANG**, PhD May 2021, Variation of Snow Resource and its Moisture Characteristics in the Tianshan Mountains (Central Asia).
- **Shan ZOU**, November 2021, Research on water resources change under climate change and human activities in Syr Darya River Basin, Central Asia.
- **Huili HE**, November 2022, Impacts of land use/land cover change on regional climate in the Aral Sea region.
- **Jiabin PENG**, November 2021, Environmental Flows Assessment and Regulation of Bosten Lake Wetland.
- **Sophie BARBAIX**, November 2021, The water landscape of Turpan: the karez and their context.



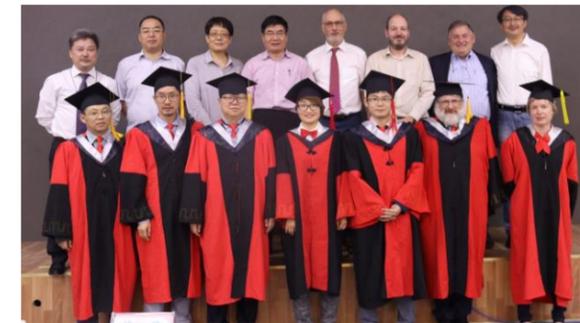
OUTPUT

– PostDoc: 1 (FWO) 2018 - 2021

– **PUBLICATIONS:**

– Joint publications indexed on the Web of Science

	Mentioning UGent and Joint-Lab	Mentioning UGent and XIEG (without Joint Lab)	Total joint publications
2015		2	2
2016		2	2
2017	9	3	12
2018	9		9
2019	16		16
2020	13		13
2021	22	1	23
2022 (Feb 2022)	2+	1	3+
2015 – 2022 (02/2022)	71+	9	80+



Philippe De Maeyer

DEPARTMENT OF GEOGRAPHY

E philippe.demaeyer@ugent.be

T +32 9 264 46 88

M +32 476 411 389

www.ugent.be

 Ghent University

 @ugent

 Ghent University

<http://www.geografie.ugent.be/cartogis-en>

<https://sketchfab.com/geographyugent>

<http://cartogis.ugent.be/yarcity3d/>