

Tracer Studies Worldwide: New Developments and Old Problems

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- 1. Introduction: Who and where is INCHER?**
- 2. Conceptual framework of tracer studies**
- 3. New tracer study developments**
- 4. Old problems: Missing or wrong interpretation of results**
- 5. Conclusions**

1. Introduction: Who and where is INCHER?

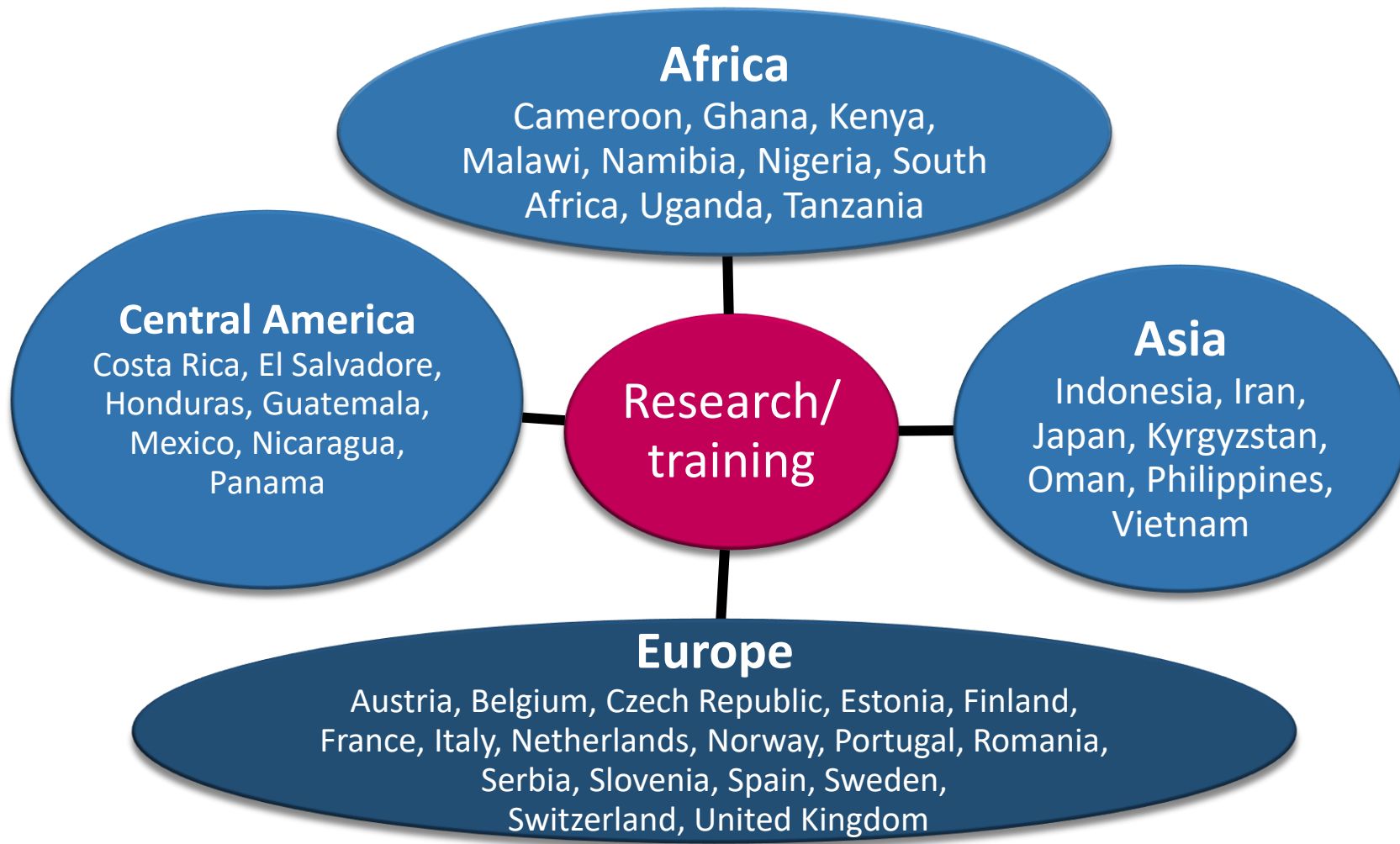
- Name: **International Centre of Higher Education Research (INCHER-Kassel)**
- Research Centre of the University of Kassel (part of the university) since more than 30 years
- About 20-30 researchers
- About 15 doctoral students
- Research focus: **Higher education and work**; HE systems and structures; (international) **graduate surveys** (CHEERS; REFLEX; PROFLEX; HEGESCO)
- International network of graduate surveys (INGRADNET)

INCHER - University Kassel: in the Heart of Germany



- Located in the center of Germany and Europe
- Unique unity of urban culture and landscape
- City of the documenta
- Parks and recreational areas
- Center for industry, services and civil administration of northern Hesse

International Tracer Study Cooperation



2. Conceptual framework of tracer studies

What are (Graduate) Tracer Studies?

● Similar terms

- Graduate survey
- Tracer study
- Alumni research
- Follow-up study
- Graduate career tracking

● Target population

- Graduates of an institution of VET/HE (regardless the kind of degree)
- Surveyed after graduation

- Tracer Studies are very often a key instrument for monitoring and evaluation in projects of donor agencies (like ADB, GIZ, JICA) in the VET and HE area
- Accreditation and accountability
- Labor market relevance/outcomes as key indicators of quality of education
- Assessment and further development of study/traing programmes should be often based on LM feedbacks

WORLD BANK and other donor agencies project: Let's work (global partnership)

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● New Methods

- Generate **new methods** and approaches to measure, understand, and strengthen the creation of more and better jobs.

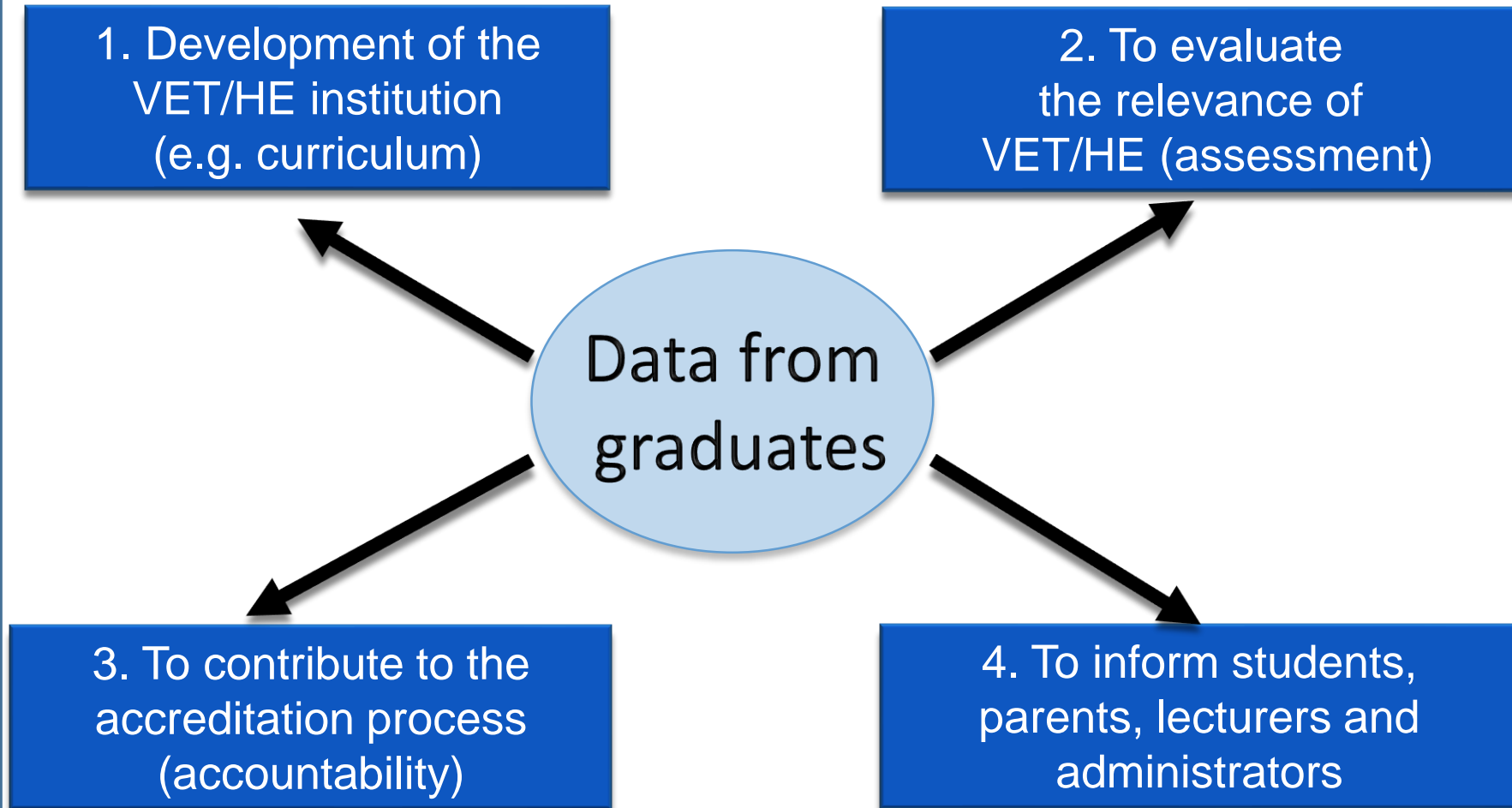
● Measuring the impact of private sector investments on jobs

● Tracer studies is one of three new methods

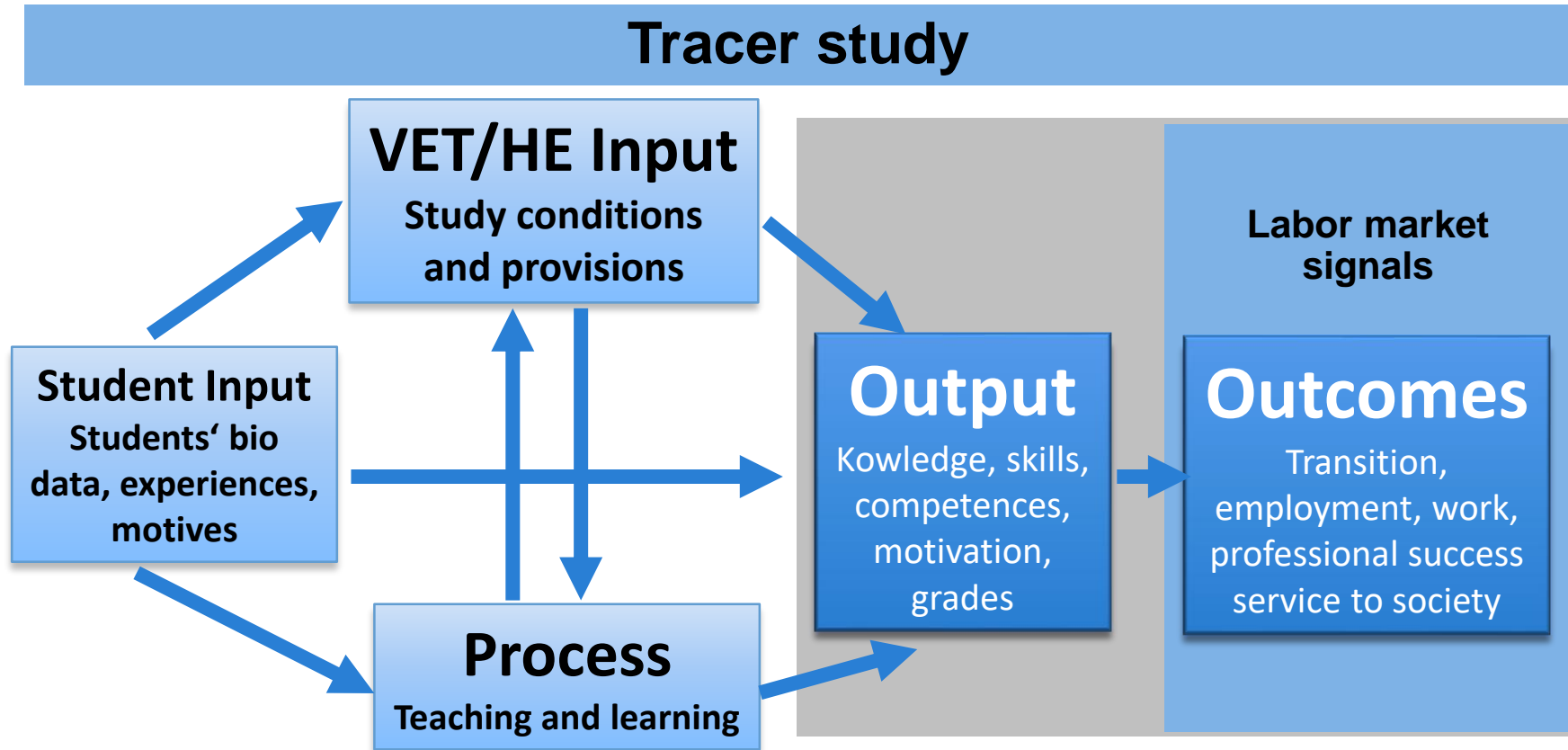


Source: <https://www.letswork.org/>

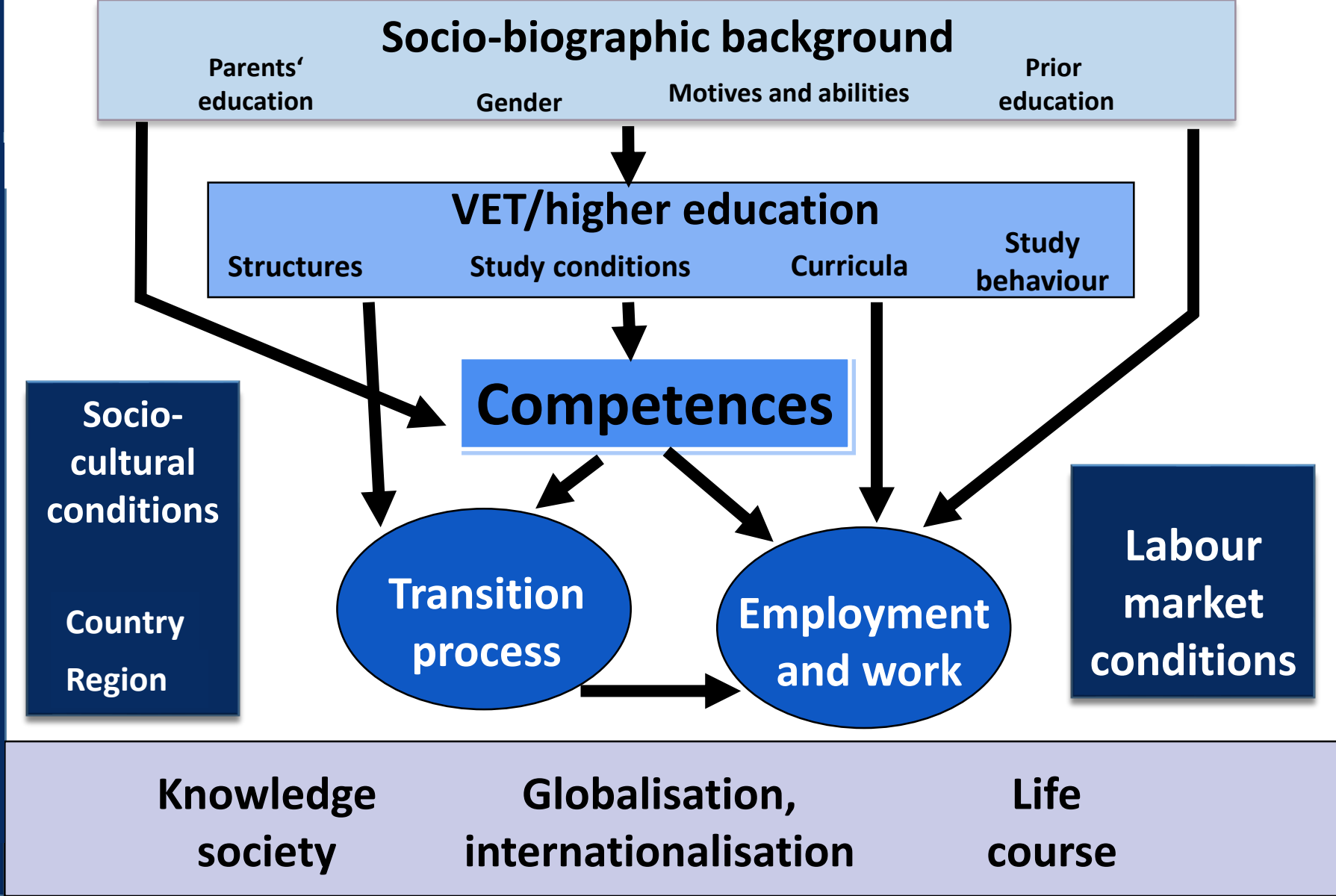
Objectives of Institutional Tracer Studies



The Conceptual Framework of Tracer Studies



Context: Labour market – region – country; socio-economic development and personal development



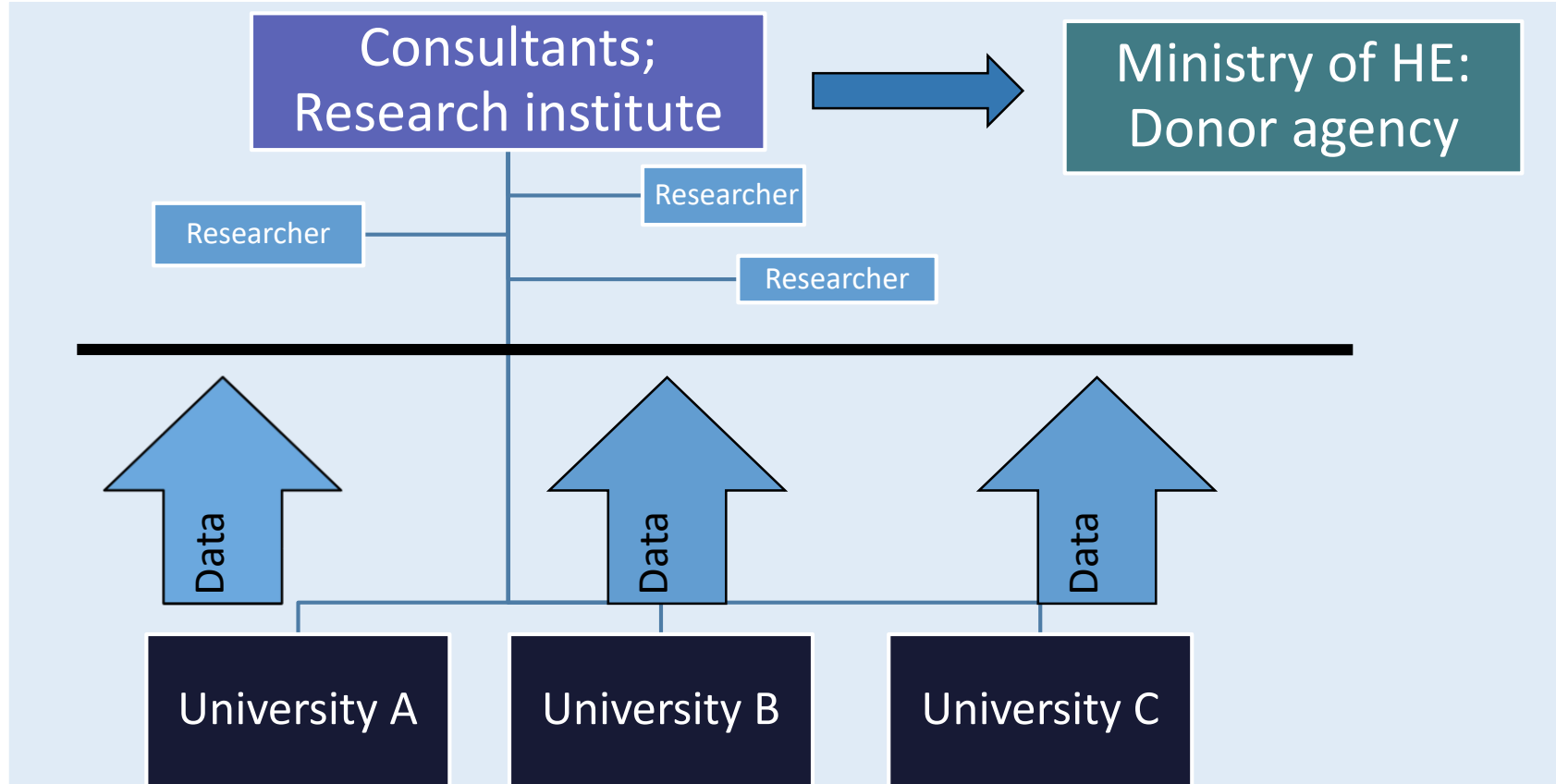
1. Which indicators do we need?
2. How to measure the labour market signals?
3. Which factors are relevant to explain the success of the graduates besides higher education?
4. To what extent is the professional success/career caused by HE?
5. Which elements of HE (study conditions and provisions, etc) have an impact?

3. New tracer study developments

- Traditional type – representative sample survey to inform the Ministry and other key stakeholders
 - Since more than 30 years
 - E.g. France, Germany, Italy, Norway, Switzerland
 - **Irrelevant for individual institution**
 - **Relevant for research**
- New type – institutional graduate surveys (all graduates from one institution of VET/HE)
 - (France), Germany, Hungary, Italy, Indonesia, the Netherlands, Romania
 - Combination of a National Monitor and a feedback instrument for VET/HE institutions
 - **Relevant for individual institutions (reports for individual institutions, study program level breakdown of results)**
 - **Relevant for a national monitor and research**

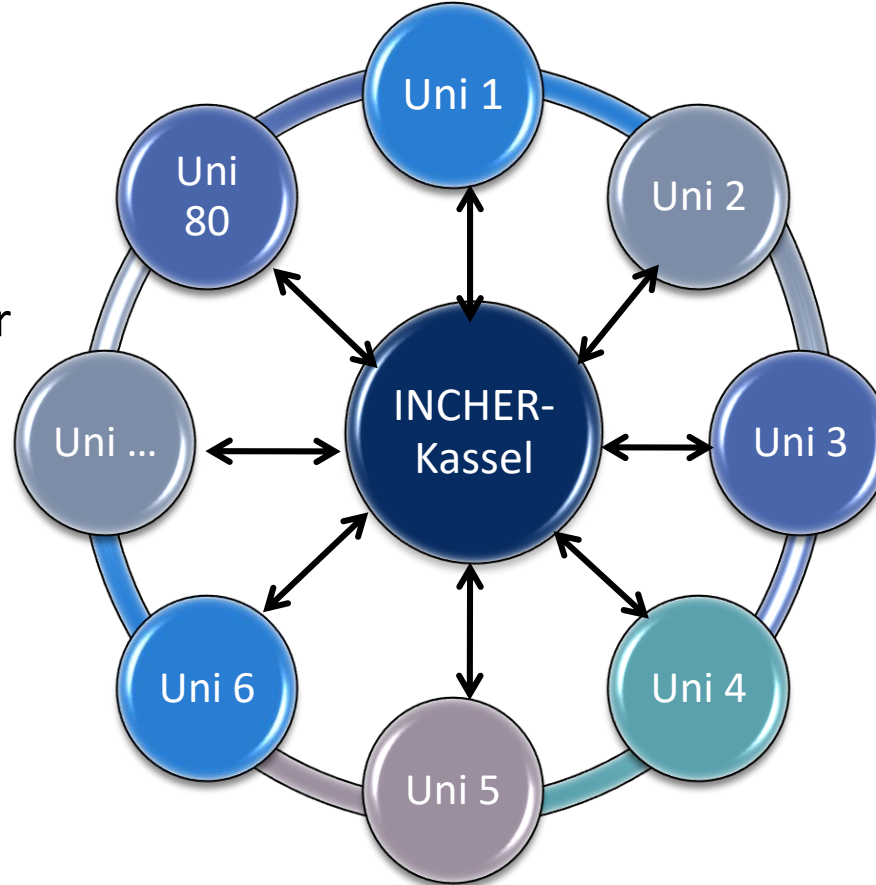
The Old Type of (National) Tracer Studies: the School/University Delivers Data (e.g. Addresses)

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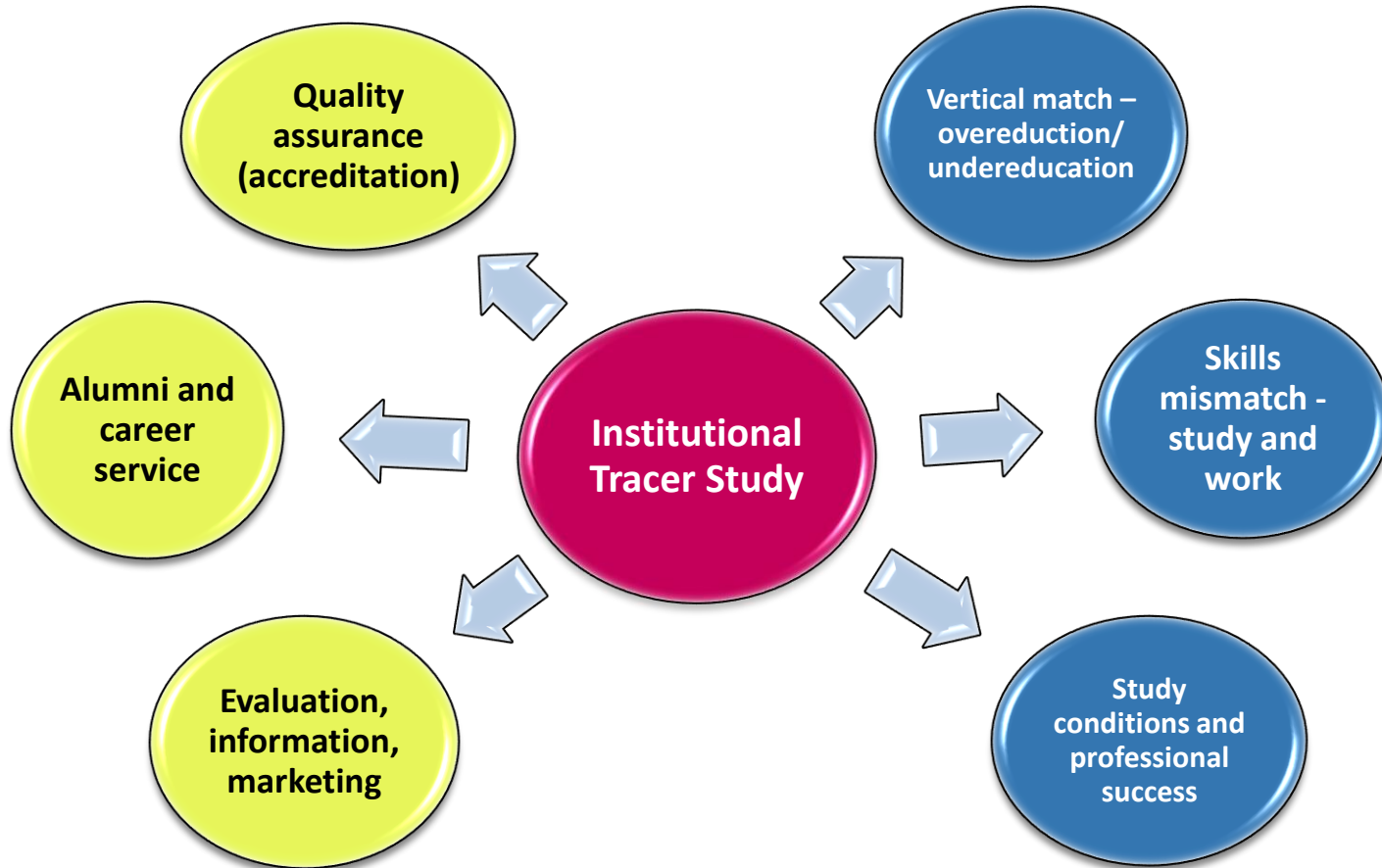


The New Type of Graduate Surveys: the Network Approach (KOAB)

About 45-70
institutions of HE
in Germany are
cooperating in
conducting regular
tracer studies



The Bridge Concept – Institutional Development and Research



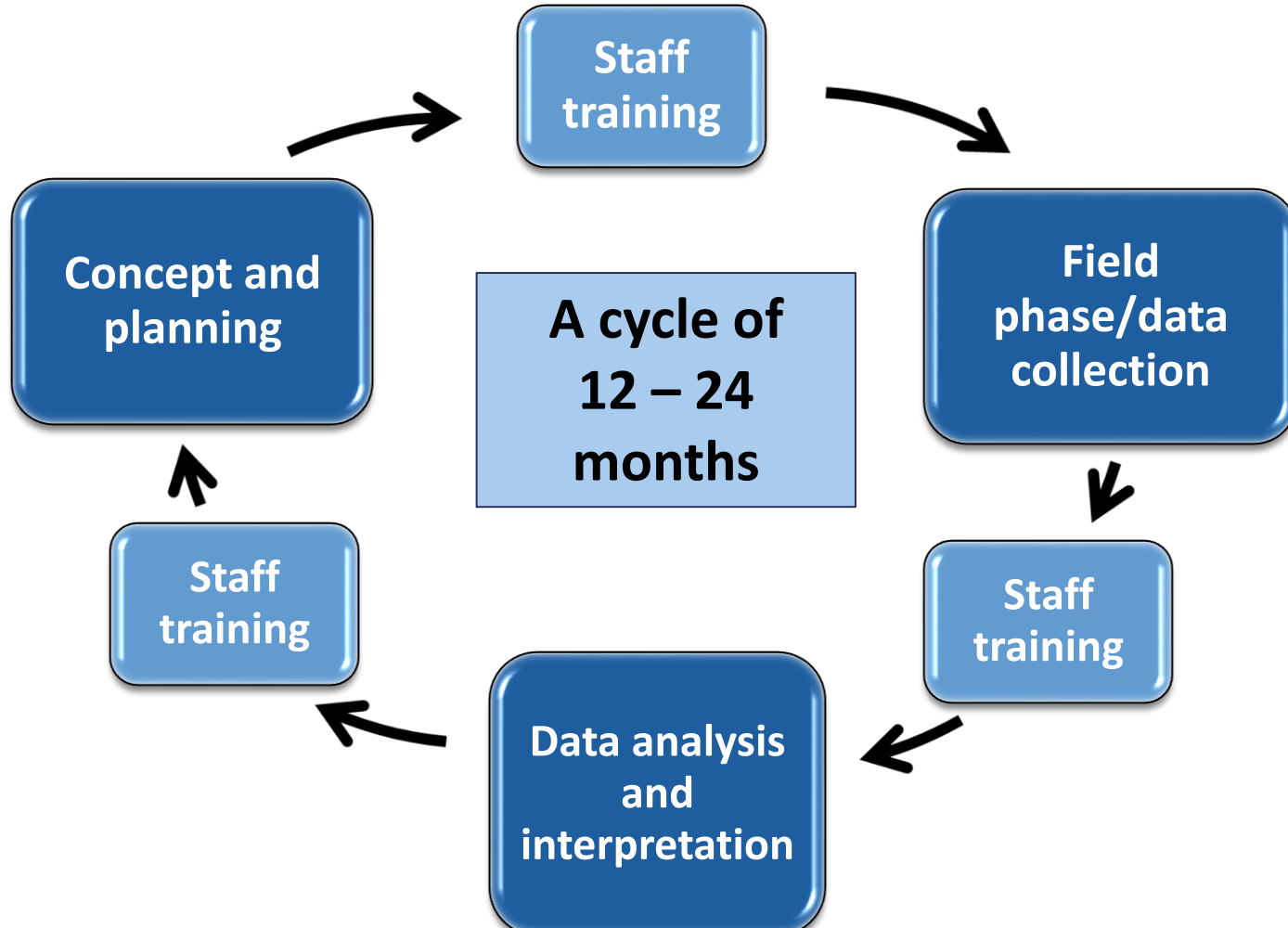
Institutional Development

Research

- *Long term perspective*: implementation of regular tracer studies
- Capacity building
 - Tracer Studies should be organized as a *learning process*
 - Training and cooperation (network) is needed
- High quality of data (standardisation of processes)
- International standards (design, use of instruments, comparison of results)

The New Tracer Study Network Approach: Capacity Building for a Learning Organisation

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- Sustainable tracer studies in the VET/TVET sector
 - Kyrgyzstan
- Sustainable tracer studies in the VET and HE sector
 - Namibia
 - Macedonia
 - Malawi
- Consolidation of the network approach
 - Indonesia (INDOTRACE)
 - Germany (KOAB)

- Since 2013 support from the European Training Foundation (ETF)
- Development of a sustainable tracer study methodology with and for initial and secondary VET providers in the Kyrgyz Republic
- Capacity building for VET provider staff (initial and secondary VET)
- Joint development of a first questionnaire
- 18 VET providers in the survey 2014
- About 1,500 respondents, mainly online
- Extension of number of participating institutions 2015

- Driving force: National Council for Higher Education (NCHE)
- First tracer study with a consultant had rather low quality
- New initiative 2013 to build a network of institutions of higher education and capacity building/training
- First survey 2014/2015 (census, cohort 2012, 3 years after graduation, online survey (QTAFI 2))
- Tracer studies in the VET sector are planned

- Skills Development Project (SDP); World bank support
- National Council for Higher Education (NCHE) and individual VET and higher education institutions
- Capacity building to foster research capacities to conduct regular tracer studies
- The methodology of the tracer studies will be developed in the project 2016
- Tracer studies in the VET sector

- New directorate of Tracer Studies within the Ministry of Higher Education
- Cooperation with the HE institutions
- SMS and phone calls
- Tracer study 2015
 - 18,000 respondents

- Skills and Innovation Support Project at Ministry of Education and Science, funded by the World Bank
- New “Observatory of Skills” will be established
- Launch of activities to build capacity and carry out surveys and analyses, notably *graduate tracer studies in VET and higher education* (2015-2016)
- All VET and HE institutions; 2 years after graduation; census; online survey (QTAFI 3 software)
- Support from European Training Foundation (ETF)



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Launching of IUCEA Headquarters Building on 21st October 2015

Call for Application: Training on University Graduates' Tracer Study Course 2.0

The University of Duisburg-Essen (UDE) coordinates the Training on University Graduates' Tracer Studies (UNITRACE 2.0) in cooperation with the Commission for University Education (CUE) and the Inter University Council for East Africa (IUCEA). This intensive training course is part of the DIES programme (Dialogue on Innovative Higher Education Strategies). DIES is a programme jointly conducted by the German Academic Exchange Service (DAAD) and the German Rectors' Conference (HRK) aiming at supporting the management of higher education in developing countries to develop strategies which improve the university management as

Eastern and Southern Africa Higher Education Centers of Excellence Project **ACE II**

LATEST

- CALL FOR APPLICATIONS: TRAINING OF UNIVERSITY GRADUATES' TRACER STUDY COURSE IN EAST AFRICA
- Developing a Regional Qualifications Framework for Higher Education in East Africa
- Academia -Public-Private Partnership Forum and exhibitions 2015

OFFICE OF THE EXECUTIVE SECRETARY

Prof Mayunga H H Nkunya

Statement by the Executive Secretary:

"Transforming EAC into a Common Higher Education Area"

UNITRACE 2.0 Web Site

https://www.uni-due.de/zfh/unitrace2.0_news.php

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UNITRACE 2.0

Training on University Graduate's Tracer Study Course 2.0

UNIVERSITÄT
DUISBURG
ESSEN

Open-Minded

Funded by the German Academic Exchange Service (DAAD) and German Rectors' Conference (HRK) within the DIES programme "Dialogue on Innovative Higher Education Strategies".



Financed by the Federal Ministry for Economic Cooperation and Development (BMZ).



Training on University Graduate's Tracer Study Course 2.0

Training on University Graduates' Tracer Study Course 2.0 in East Africa 2015-2016 (UNITRACE 2.0)

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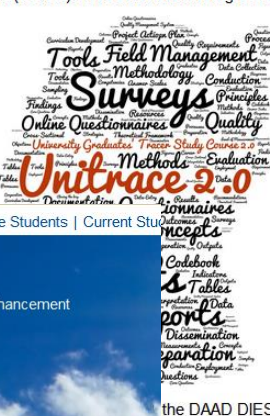
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Prospective Students | Current Students

CHEDQE

Center for Higher Education Development and Quality Enhancement

About us - The CHEDQE



Contact



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In cooperation with



- Armenia
- Morocco
- Tunisia

- Reports will be available soon

New High Cost Tracer Study System in Hungary

**About 2
Million US
Dollars for the
central
support unit**



Tracking graduate careers in Hungary

Tracking system at national and HEI levels

National level

- support HEI projects: provide the standard of tracking systems, helpdesk, conferences, handbooks
 - central services: national surveys, database, communication (web)
- Educatio Nonprofit Company**
~ 2M euro,
(15.05.2008-15.10.2010)

Institutional level

Establish or improve graduate tracking system: surveys, institutional background, external and internal communication

30 projects of HEIs, total 16M euro
(01.2010-12.2010)

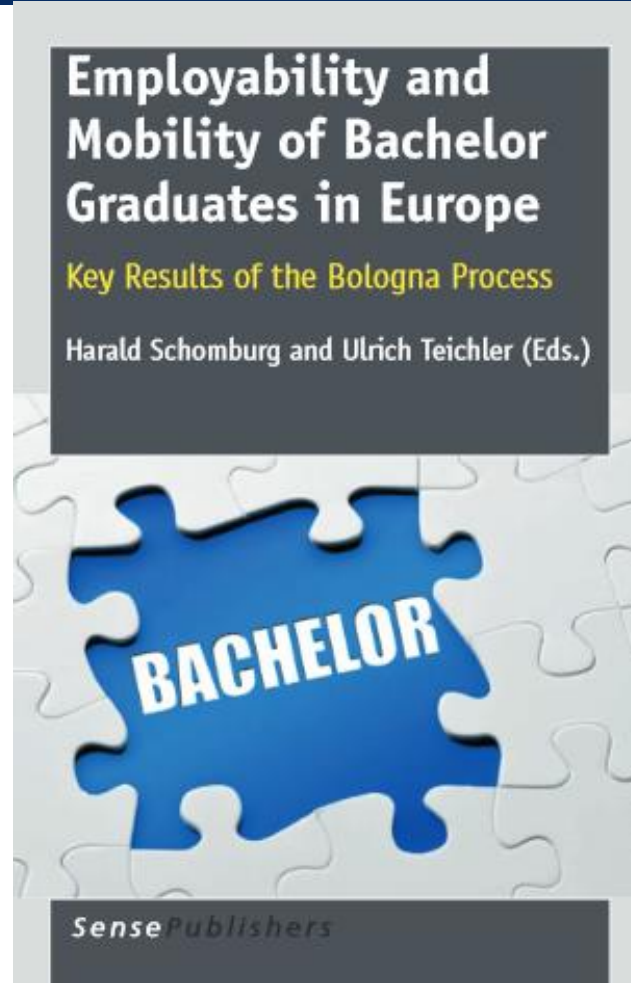
**About 16
Million US
Dollars for 30
institutions**



Key Design Elements of Graduate Tracer Study Systems in Europe

Country/survey	Regularity	Timing	Language of reports
Germany - KOAB	Every year	1.5 and 5 years after	German
Germany - DZHW	Every 4 years	1, 5, and 10 years after	German
France - CEREQ	Every 3 years	3 years after	French
Italy - ISTAT	Every 3 years	3 years after	Italian
Italy - AlmaLaurea	Every year	1, 3, and 5 years after	Italian
Netherlands	Every year	1 year after	Dutch
Switzerland	Every 2 years	2 years after	German, French, Italian
Norway	Every 2 years	6 months after	Norwegian

Sense Publishers 2011



● New initiative in Europe

eurograduate.eu
feasibility

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High demand for a European graduate study among stakeholders

More than 80% of the national ministries responsible for higher education participating in the feasibility study indicated that it would be important or very important that their country be covered by a European graduate study (EGS). Hence, a European graduate study seems to be a project which is in strong demand by the

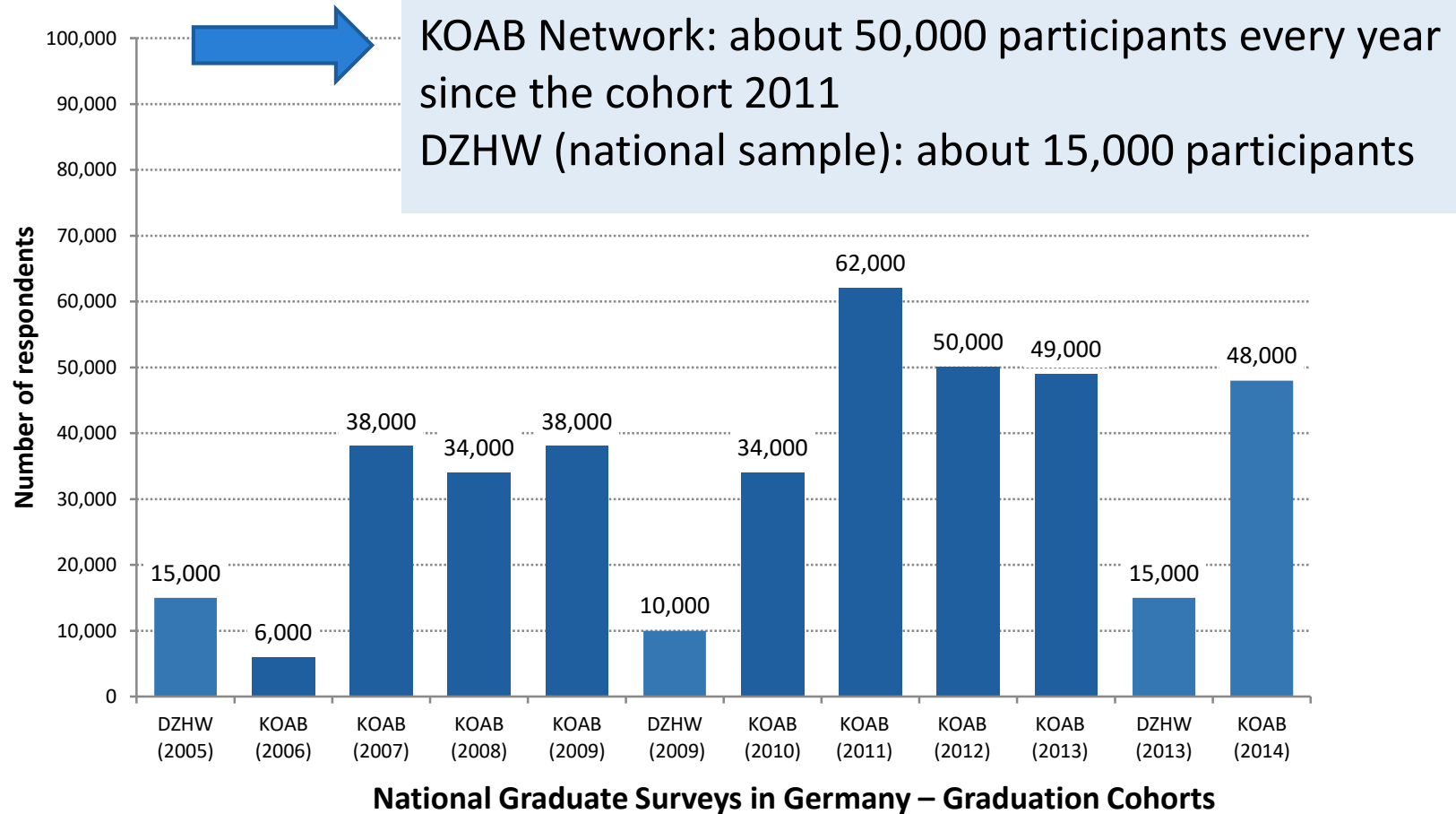
<http://www.eurograduate.eu/results/digests>

Development of the KOAB Network in Germany

- Every university has an individual questionnaire (2009: 160 surveys were administrated at the same time by INCHER-Kassel)
- Every university has a project coordinator (= researcher)
- At least 6 training workshops per survey + national and international conferences
- Response rate: 50 %

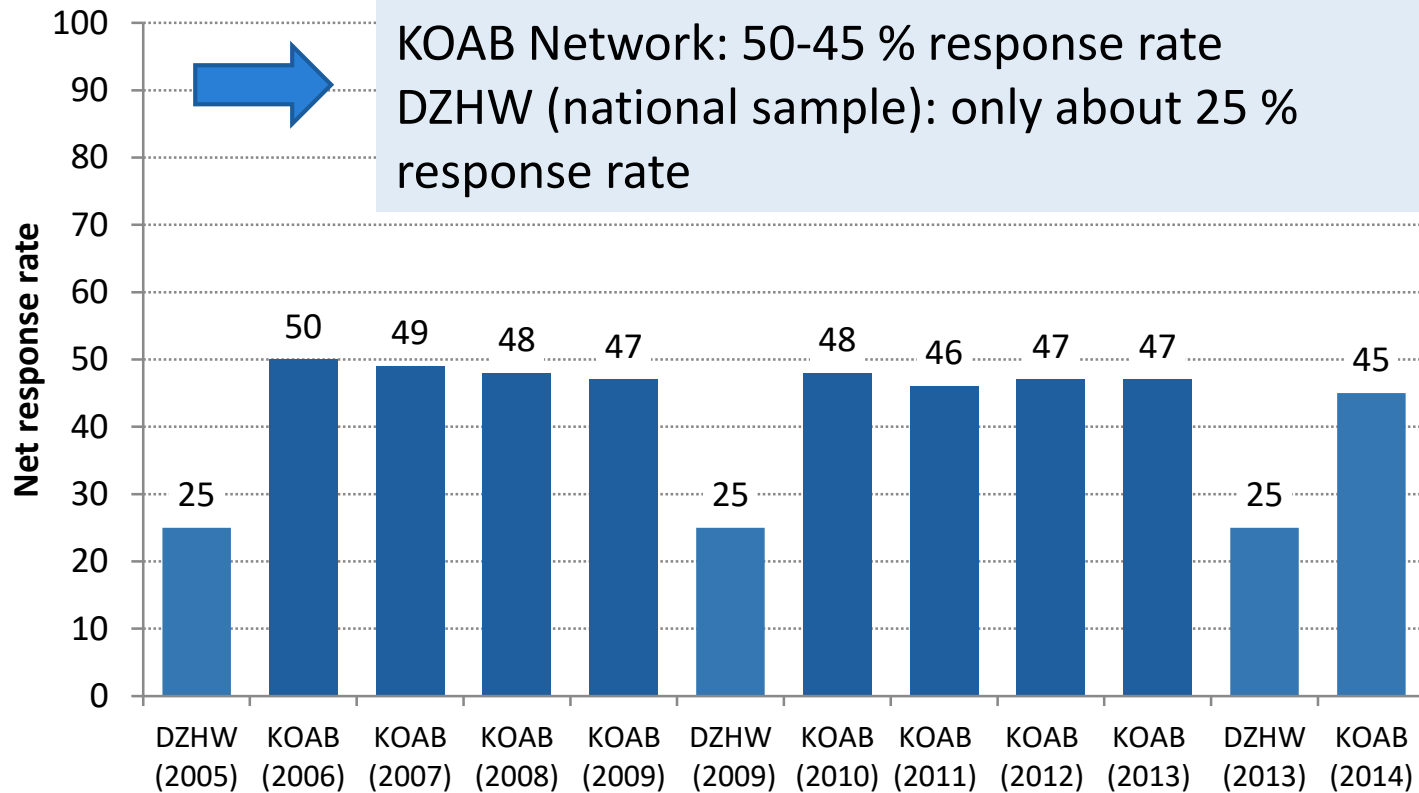
Participation in Graduate Surveys in Germany

Graduation Cohorts 2005 – 2014 (DZHW and KOAB)



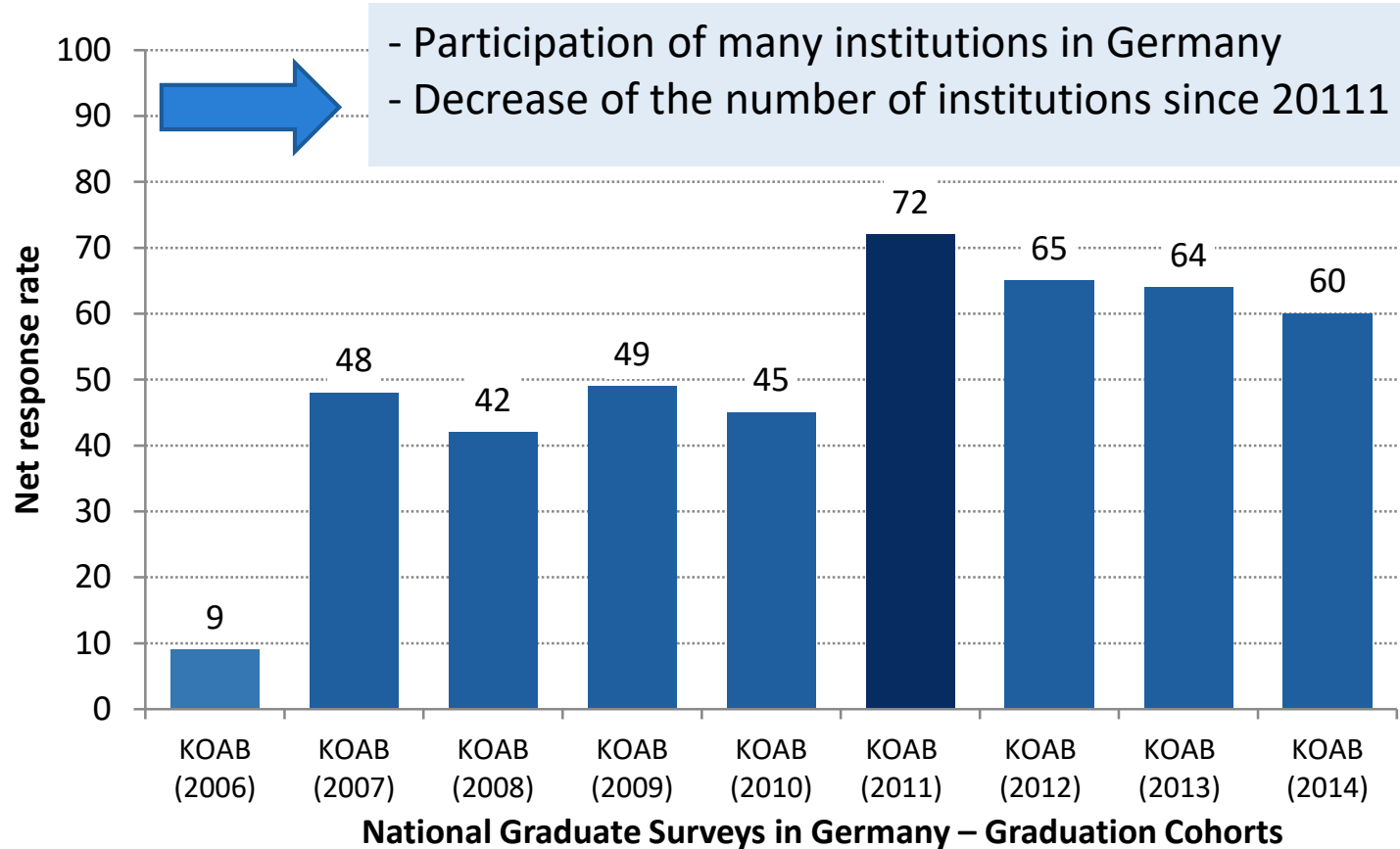
Response Rates in Graduate Surveys in Germany

Graduation Cohorts 2005 – 2014 (DZHW and KOAB)



National Graduate Surveys in Germany – Graduation Cohorts

Number of Participating Institutions in the KOAB Network Graduate Surveys in Germany Graduation Cohorts 2005 – 2014



Tracer Study Networks – other institutional tracer studies

CONGRAD: Conducting graduate surveys and improving alumni services for enhanced strategic management and quality improvement

CONGRAD



CONGRAD will address the need of higher education institutions in

Serbia,

Montenegro and

Bosnia and Herzegovina

to improve their institutional strategic management and self-evaluation capacities by the establishment of a Graduate Contacts Collection System and **the implementation of regular Graduate Surveys.**

<http://www.congrad.org/tempus>

Main report: 132 pages

FROM STUDENT TO (UN)EMPLOYED PROFESSIONAL

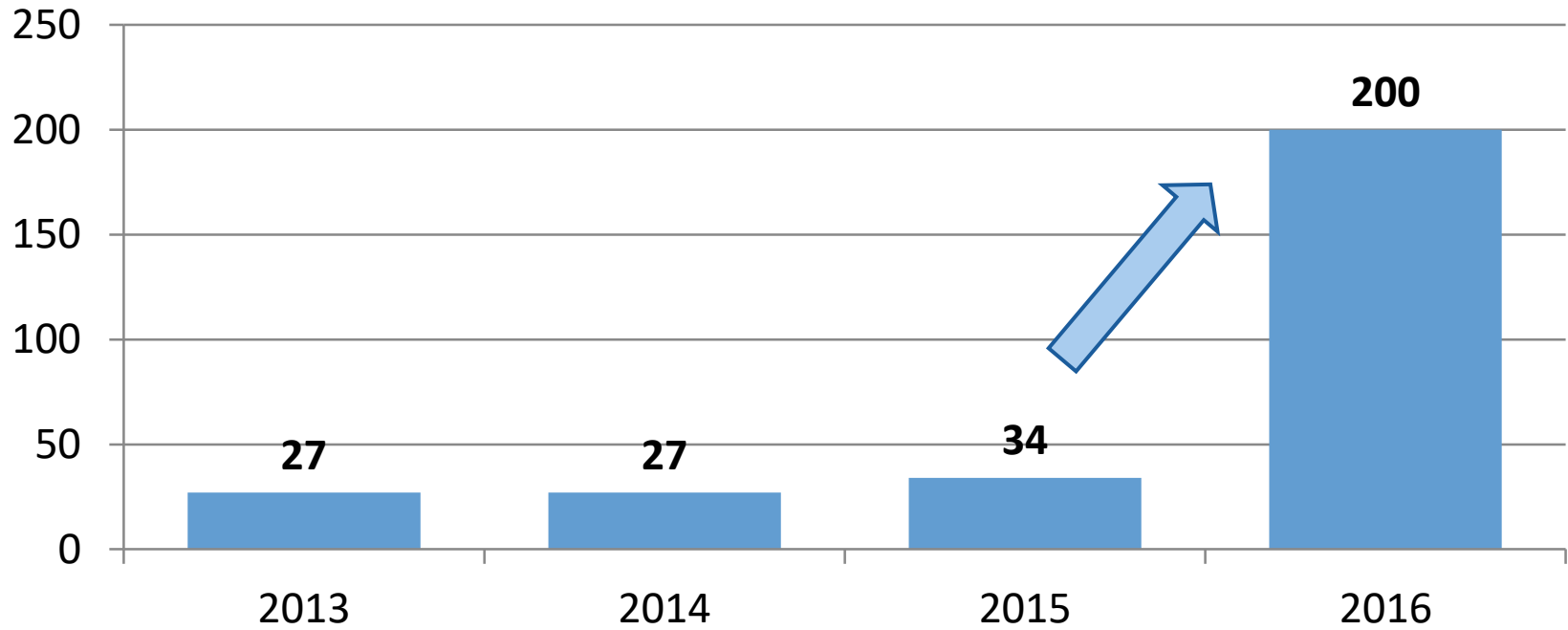
Findings from the first graduate survey in Serbia,
Bosnia and Herzegovina and Montenegro within the Tempus project CONGRAD

- INDOTRACE – a network of tracer studies since 2010
- Units conducting the tracer studies: Career Service
- Since 2012 small grants of the Ministry of Education for universities to conduct tracer studies
- 2012-2015 only about 30 grants
- 2016 big shift: now 200 grants will be available
- Central data base in the Ministry
- Technical support / training for the universities provided by Indonesian tracer study experts

Tracer Studies of Institutions of Higher Education in Indonesia 2013-2016 (grants)

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Number of institutions of higher education



ITB Bandung – Indonesia: Regular and Fast Publication of Results

**Very high response rate:
2014: More than 90 %**

The screenshot displays the 'Tracer Study' section of the ITB Career Center website. The header includes the ITB Career Center logo and navigation links: Kuesioner, Kontak, Laporan (highlighted), Seminar, and Tentang. A 'Report' tab is selected, showing two entries:

- 2014 Tracer Study ITB 2014**: Includes a summary and a link to download the report (pdf). The report cover features a landscape image and the text 'REPORT TRACER STUDY ITB 2014 Angkatan 2007'.
- 2013 Tracer Study ITB 2013**: Includes a summary and a link to download the report (pdf). The report cover features a building image and the text 'REPORT TRACER STUDY ITB 2013 Angkatan 2006'.

Source: <https://karir.itb.ac.id/tracerstudy/report>

Low Budget Example Guatemala (UNITRACE): Successful Methodology

**The experience of
Graduates Tracer Studies
at Universidad del Valle de
Guatemala (UVG),
Guatemala, Central
America.**



Thanks for your attention!



ealvarez@uvg.edu.gt



debroy@uvg.edu.gt

UNITRACE PROJECT - GUATEMALA - OCTOBER 2012

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Conclusions

- It is possible to conduct a Graduated Tracer Study using automation methodologies, integrating systems and using a low budget if it's well planned.
- A permanent methodology has been developed in this topic at UVG.
- It is possible to use the methodology developed to do national studies.

4. Old problems: Missing or wrong interpretation of results

Methodology: Measurement and Representation

The content of the
questionnaire

This side is about what
is being measured

Measurement

Construct

Measurement

Response

Edited
Response

Survey
Statistic

Representation

Target
Population

Sampling
Frame

Sample

Respondents

Postsurvey
Adjustments

The process of the
survey

This side is about who
is being measured

Figure 2.2 Survey lifecycle from a design perspective.

Low Quality of Many Tracer Studies

- Tracer Studies are very often done by local consultants with little research experiences and almost no knowledge about education
- High costs and low quality
 - low response rate
 - **misinterpretation of findings**
- Local consultants are often not following international standards – e.g. they do not compare their study with others
- Only a few studies are published

1. Critical reflection of the possibility of *biased results*;
2. *Comparison* of results with other studies;
3. *Comparison* of results from similar question in the tracer study;
4. Consideration of information about the *educational context*, which are not gained through the study (e.g. information about the institution and the study programme/training course);
5. Consideration of information about the *labour market*, which are not gained through the study (e.g. information about unemployment, economic cycle, economic structure in a region);

- **Selection bias**: test of the representation of respondents;
- **Item non-response**: why are some questions not answered? Explanation of response behaviour.
- **Drop-Out**: why was the questionnaire not completed? Explanation of response behaviour;
- Univariate (frequencies) and bivariate (two variables) data analysis is not sufficient;
- Multiple regression analysis and structural equation modelling (SEM; LISREL or AMOS) is necessary

- In the interpretation of the findings it should always be discussed whether the results might be influenced in a certain direction – not only by a random error
- To detect biased results a **method report** should contain precise and full information about the survey procedures
- Since it is almost impossible to correct biased results, the attempts to ensure that the sample of participating graduates represents the total population are crucial for the whole study
- *A selection bias is always a danger in Tracer Studies with different methods of contacting the graduates*

- Comparison with findings from tracer studies at the *same institution* which were done earlier, or with tracer studies from other institutions.
- *Within one institution* the comparison between study programmes is most important for the institutional tracer studies.
- All results of the study must be presented on ***the level of study programmes/training courses*** if conclusions for this level are the objective. Overall results for the whole institution are less interesting in this context.
- But also the **relationships** within the collected data are relevant and should be checked and compared systematically.

- The “results” are always produced by selected statistical methods of the researcher
- There is no simple direct way from the data to “results”
 - Coding and recoding
 - Missing values
 - Aggregation
- To present simple statistics for the whole population (e.g. all graduates from one institution) is misleading
- There can be big differences between study programmes/training courses, gender, etc.

- The number of cases (graduates) should always be checked
 - The numbers should also be presented in tables to enable the reader to check the plausibility
- Do we have enough cases that a finding is not by chance?
- What minimum of cases do we expect?
- A statistical significant result might be not important
- It is not sufficient to write in a report that e.g. income differences between male and female graduates are “significant”; how big are the differences?
- Statistical significance helps to avoid an over-interpretation of findings which might have occurred by chance. This is especially important if the number of cases is small.

Requirements for Meaningful Interpretations and Practical Relevance of Results of Tracer Studies

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- Close cooperation between **education experts** and **experts of data analysis** (statistic)
- Method report – detailed documentation of survey procedures
- Test of representation of the sample
- Use of a professional tool for data analysis like SPSS, STATA or R (the use of EXCEL is not sufficient)

5. Conclusions

Lessons Learned from Tracer Studies in Different Countries

- *High response rates* are possible to achieve in almost all countries
- *High quality of the data* is a pre-requisite of the relevance of the findings for research and institutional development
- Availability and quality of *addresses* (methods used to update addresses) seems not to be a real problem
- *Documentation* of survey procedures and data editing is necessary – **culture of critique**

- Can Institutional Tracer Studies deliver relevant data to substitute a separate *National Tracer Study*?
- How to ensure *comparability* of Institutional Tracer Studies?
- Who collects the data and is responsible for data quality?
- How to build a *system of Tracer Studies* which is flexible and relevant for the institutions and for researchers (and the Ministry of Education) at the same time?
- How to exchange systematically the experiences to improve the future Tracer Studies (building *a learning culture*)?

- The implementation of Institutional Tracer Studies is a long term perspective (5 to 10 years)
- Network approach of institutions (cooperation) helps
- A central (national) support unit is needed
 - Education research center (e.g. at university)
 - National monitor – national data base
 - Training, workshops and conferences
 - Publications, international contacts
- **Handbooks/Guides are also available**

Thank you very much for your attention

Further information and tools:

Web site <http://ingradnet.org>

Harald Schomburg (2015): Carrying out tracer studies. In: ETF/CEDEFOP/ILO (eds.): Guide to anticipating and matching skills and jobs. Volume 6. Torino: ETF (in print).