Keynote Speech:

Internationalists and Locals in Research.

Lessons from International Comparative Academic Profession Studies in Europe

Internationalisation of Higher Education across Europe: rationales, representations of international students and teaching excellence conference, 7th June 2018, Keele University, the UK

Professor Marek Kwiek
Director, Center for Public Policy Studies
UNESCO Chair in Institutional Research and Higher Education Policy,
University of Poznan, Poznan, Poland
kwiekm@amu.edu.pl; www.cpp.amu.edu.pl

Context: Major Prototypical Figures

Academic profession studies – **sociology of academic careers**.

The **prototypical figures** explored quantitatively (in a stylized fashion) in the last 5 years have been as follows:

- "**internationalists**" and "**locals**" in research,

- "research **top performers**" (upper 10%),
- "non-publishers" or "**silent scientists**",
- "academic **top earners**" (upper 20%) and
- "**young academics**" (academics under 40).

All analyses across 11 European **countries** and major **clusters** of academic fields.

Mostly **full-time** employed, from the university sector (as defined nationally), involved in both teaching and research.

Data and Methods (CAP & EUROAC)

- **11 European countries studied**:
  - Austria, Finland, Germany, Ireland, Italy, the Netherlands, Norway, Poland, Portugal, Switzerland, and the UK (England).
- **Cleaned, weighted and integrated** into **a single European data set** by the University of Kassel team (Ulrich Teichler)
- The total number of **returned surveys: 17,211 (400 variables)**
  - included 1,000 and 1,700 returned surveys in all European countries studied, except for Poland where it was higher.

  A **micro-level (individual) approach**: relies on **primary** (rather than secondary) attitudinal and behavioral data; **voluntarily** provided by academics; in a **consistent**, internationally **comparable** format.
- The **individual academic** is the **unit of analysis** (rather than *national* higher education systems or an *individual* HE institution).
- Individual data files produced in all participating countries
  - but all specifically **national** categories (faculty ranks, institutional types etc.) reduced to **internationally comparable** categories.

Purpose: to discuss lessons drawn

- Differentiated **lessons** drawn from a **large-scale comparative international** academic profession study: „**Changing Academic Profession**" (and EUROAC)
  - 11 European countries, 100 scholars globally, 40 European scholars, changing team composition over time…
  - **17,000 returned surveys, 600 semi-structured interviews…**
  - 8 years of work (2009-2017), and still ongoing…
  - **A global follow-up: APIKS**, 28 countries, 3 years of preparations, minimum 3 years of data collection, minimum 3 years of data analysis, again 9 years minimum…
  - Polish survey: October 2018
  - 500 papers & book chapters
  - My book: ***Changing European Academics: A Comparative Study of Social Stratification, Work Patterns and Research Productivity*** (Routledge 2018, 304 pp.)

Two pure types of academics

- Two separate groups European academics: "**internationalists**" (involved in international research collaboration), and "**locals**" (not involved).

Research questions

A number of attitudinal and behavioral research questions about internationalists emerge:

- are they **more productive** than locals, in several possible dimensions studied (PRA; PRAE)?
- are they on average **less often non-performers (non-publishers)** than locals?
- are they on average **more often top performers** than locals?
- is **their working time distribution different** (on average more time spent on research, less time spent on teaching, and more time spent on administration)?
- is their **academic role orientation different** (on average more research-oriented than teaching-oriented)?
- are internationalists **generally older and in higher academic positions**?
- are internationalists collaborating in research **more domestically**, with national colleagues?
- are internationalists **more popular in hard than in soft fields** – what is their cross-disciplinary distribution?

Hypotheses

H1: **Productivity hypothesis**: Internationalists are more productive than locals

H2: **Time distribution hypothesis**: Internationalists on average spend more time on research, less time on teaching, and more time on administration

H3: **Academic role orientation hypothesis**: Internationalists are more research-oriented than locals

H4: **Gender hypothesis**: Internationalists tend to be males rather than females

H5: **Age and seniority hypothesis**: Internationalists tend to be older and in higher academic positions

H6: **Field distribution hypothesis**: Internationalists tend to come from hard rather than soft fields

Internationalists, definition = those who collaborate internationally in research (Yes)

International research collaboration (1): collaboration vs. lonely scholars

- Previous research suggests that the "**collaborative imperative" dominates**, especially in hard disciplines, though it is less prevalent in soft ones (Lewis, 2013; Kyvik & Larsen, 1997).
- In some disciplines, such as **the humanities, the "lonely scholar" model dominates**, while in others, only international research collaboration (IRC), especially internationally co-authored publications, matter for recognition.

International research collaboration (2): competition

- **"Internationalists" or "cosmopolitans"** (academics involved in IRC) increasingly **compete** with "**locals**" (academics not involved in IRC and/or not publishing internationally) in **university hierarchies of prestige** across Europe (Wagner & Leydesdorff, 2005).
- Internationalists/ cosmopolitans and locals are also **competing for access to funding** from national research funding agencies, especially in the **hard sciences** (Smeby & Gornitzka, 2008).
- **Academics** are central to the **success of internationalization in research**: they can be more or less (or not at all) internationally-minded in their research; and collaborating - or not!

International research collaboration (3): terminology

- In Robert K. **Merton's sociology of science** (Merton, 1973, p. 374), outstanding scientists tend to be "**cosmopolitans**", oriented to the wider "**national and trans-national environments**", and "locals" tend to be oriented "primarily to their **immediate band of associates**".
- **Alvin Gouldner** in his "**cosmopolitan-local" ideal types** has contrasted academics who are
  - more **loyal** to their **employing organization and less research-oriented** (that is, locals) with academics who are
  - **less loyal to their organization and more research-oriented** (that is, cosmopolitans).
- **Immobile, parochial, and institution-oriented academics** (loyal to inside reference groups) were contrasted with **mobile, cosmopolitan, career-oriented academics** (loyal to **outside reference groups**).

International research collaboration (4): audiences and markets

- **International orientation differs across academic disciplines**, soft sciences being in general more local, and hard sciences being more global or internationalized: **reward systems operate differently not only across countries but also across disciplines**.
- In short, **seeking international recognition** within discipline-sensitive national reward systems in science **may be more (or less) "necessary"** (Kyvik and Larsen, 1997, p. 260).
- Its level depends also on what Richard Whitley (1984, p. 220) termed "**the structure of reputational audiences**", different for different disciplines: reputation comes from different audiences, lay groups or groups of colleagues, national or international.
- **Locals produce knowledge for local research markets** and audiences; **internationalists produce it for international markets** and audiences, or both local and international ones (Kyvik and Larsen, 1997).

International research collaboration (5): personal decisions to internationalize

- At an individual level: **a personal decision to internationalize more** (or less) in research.
- The level of international orientation depends on the **researchers themselves** (Wagner and Leydesdorff, 2005).
- Faculty internationalization is reported to be **disproportionately shaped by individual values and predilections** rather than **institutions** and **academic disciplines** (Finkelstein, Walker & Chen, 2013).
- Institutional-level **pressures to internationalize in research** – from a policy perspective – may not work.
- The power of **national recognition and reward systems** in science – the major driving force of internationalization.

International research collaboration (6): impediments and costs

- **Impediments** to collaboration related to
  - **macro-level factors** (geopolitics, history, language, cultural traditions, country size, country wealth, and geographical distance),
  - **institutional-level factors** (**reputation and resources**), and
  - **individual-level factors** (Georghiou, 1998).
- Benefits – and costs (Katz & Martin, 1997).
- **Transaction costs** (Georghiou, 1998) and **coordination costs** (Cummings & Kiesler, 2007) are **higher** in international than in national research collaboration.
- In international collaborative research, there is **a trade-off** between an increase in **additional publications** (and research funds) and **the minimization of transaction costs** (Landry & Amara, 1998).

International research collaboration (7): productivity and impact

- Having **multiple universities involved** in research collaboration **complicates coordination and worsens the outcomes** of projects (Cummings & Kiesler, 2007).
- Research collaboration **with highly productive scientists** generally increases individual productivity, while collaboration with low-productivity scientists is reported to decrease it (Lee & Bozeman, 2005).
- **Multiple-institution papers** are more highly cited than single-institution papers, and **papers with international co-authors** are more highly cited than papers with domestic co-authors (Narin & Whitlow, 1990).
- Changing **incentive and reward systems** in European science, which are becoming **more output-oriented** (Kyvik & Aksnes, 2015), it is **ever more important for individual academics to cooperate** and, specifically, to cooperate internationally (as well as to co-publish internationally).

International research collaboration (8): pragmatism and self-organization

- The broad awareness of international research-based university rankings makes **scholarly publishing more than an individual matter** and links them closely to **institutional and/or departmental funding and prestige**.
- Research collaboration at an individual level is ruled by:
  - **researchers' "pragmatism"** ("when there is something to gain, then a particular collaboration will occur; otherwise, it will not") and by
  - **researchers' "self-organization"** (individual rather than institutional determination of "with whom to cooperate and under which forms") (Melin, 2000, p. 39).
  - The **selection of partners and locations for research collaboration** - is most often based on choices made by the **researchers themselves**.
  - What matters in more **spontaneous or bottom-up collaborations** is "the **individual interests of researchers seeking resources and reputation**" (Wagner & Leydesdorff, 2005, p. 1616).

International research collaboration (9): resource allocation theory

- According to resource allocation theory, **the resources that academics and their teams can invest** in research (their commitment and time) are **always limited**.
- Consequently, the **decision to engage** in international research teamwork, "is **ultimately a resource allocation decision** by which members must decide how to best allocate their limited resources" (Porter et al. 2010, p. 241), with **time often being a more valuable research resource than funding** (Katz & Martin, 1997).
- The **consumption of time** due to various additional requirements can reduce the time and energy available for **actual research activities** (Jeong et al. 2013).
- For collaboration to emerge, **two preconditions** must be met:
  - **motivation** on the part of the researcher and
  - his or her **attractiveness** as a researcher to international colleagues (Kyvik & Larsen, 1994; Wagner, 2006).

- **Finally, some data & analyses!**

Figure 1. **Internationalization in research**: average percentage of academics whose **research is international in scope or orientation** and **who collaborate in research** with international colleagues, only academics employed in the university sector and involved in both teaching and research, by country.

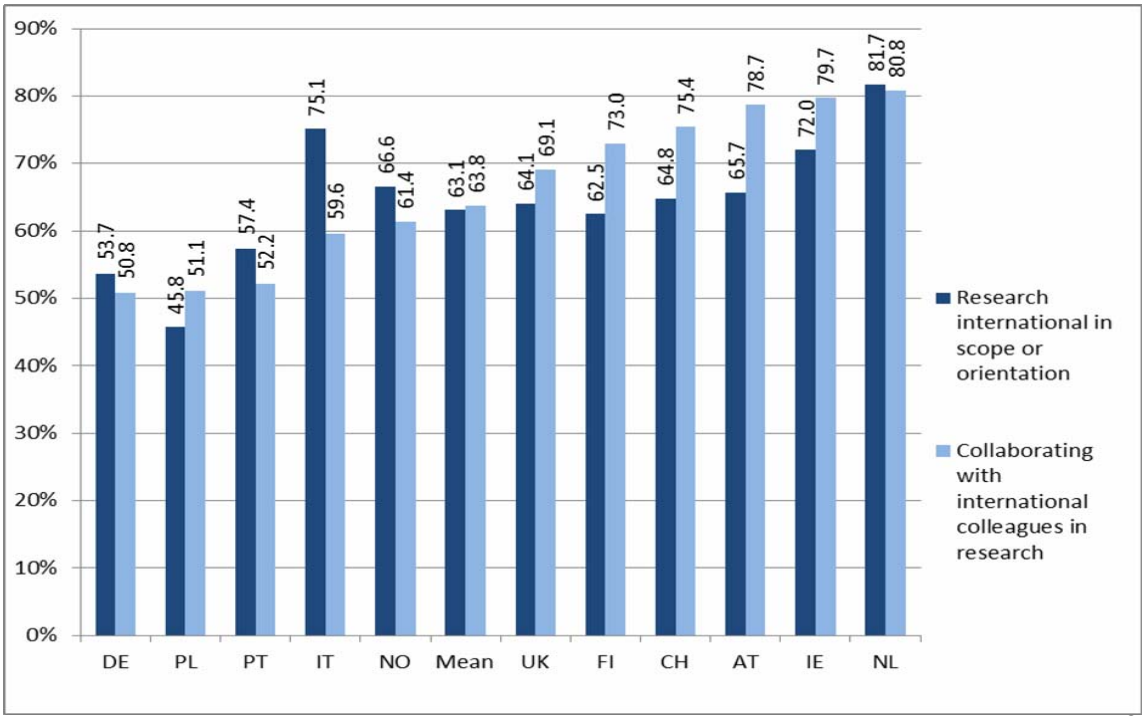


Figure 2. **Internationalization in research**: percentage of academics whose research is international in scope or orientation and who collaborate in research with international colleagues, only academics employed in the university sector and involved in both teaching and research, **by major clusters of academic fields.**

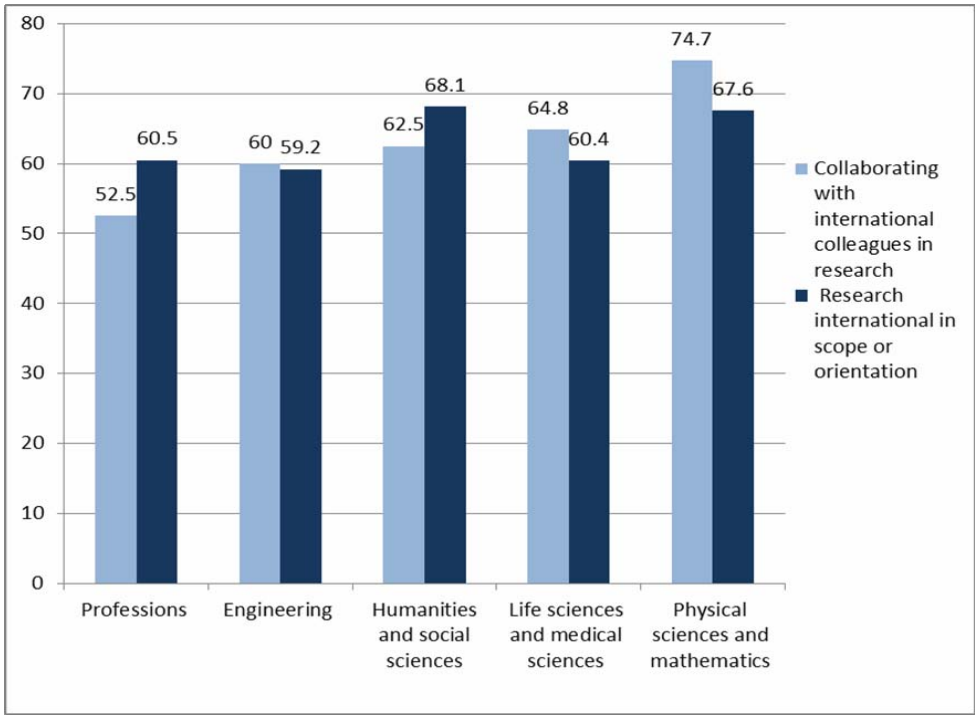
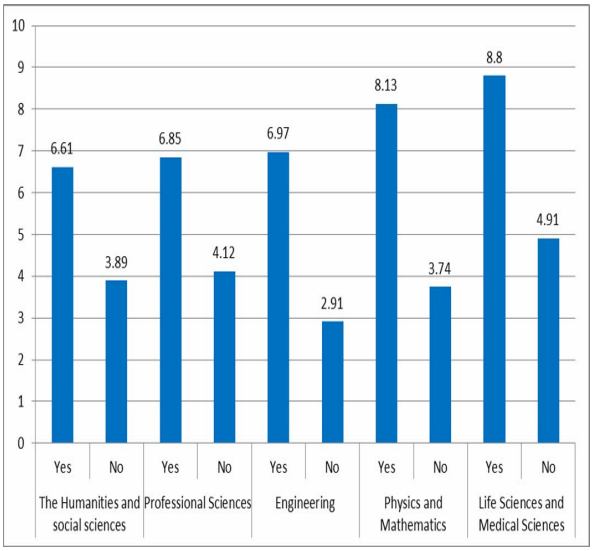


Figure 3. The average **number** of peer-reviewed papers (and book chapters) published by **European** academics in the three-year period studied **by international cooperation in research** ("yes" or "no") and **by clusters of academic fields** (all results statistically significant).

Figure 4. The average **share** of peer-reviewed papers (and book chapters) published by **Polish** academics in the three-year period studied **by international cooperation in research** ("yes" or "no") and **by clusters of academic fields** (all results statistically significant).



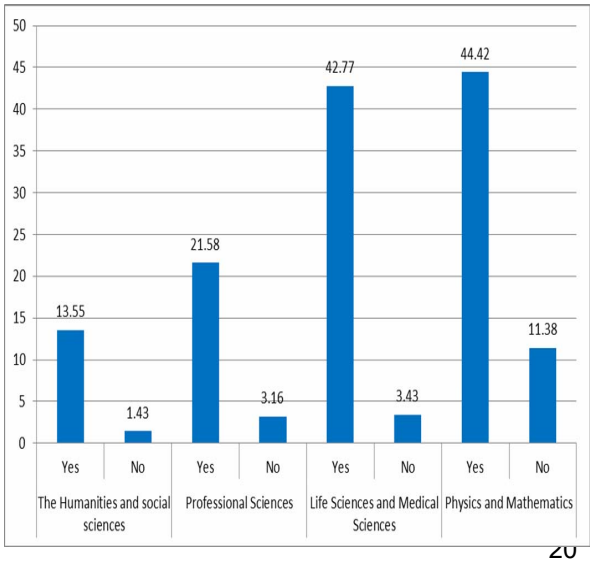


Figure 5. Various international activities, academics employed full-time in universities, Poland, by career stage (some answers from 1 to 5 on a five-point Likert scale, answers 1 and 2, “strongly agree” and “agree”, “very much” and “much” combined);
(Academics 1. “who emphasize international perspectives or content in their courses”; 2. “whose primary research is international in scope or orientation”; 3. “collaborating with international colleagues in research”; and 4. “who employ in research primarily English”), in percent.

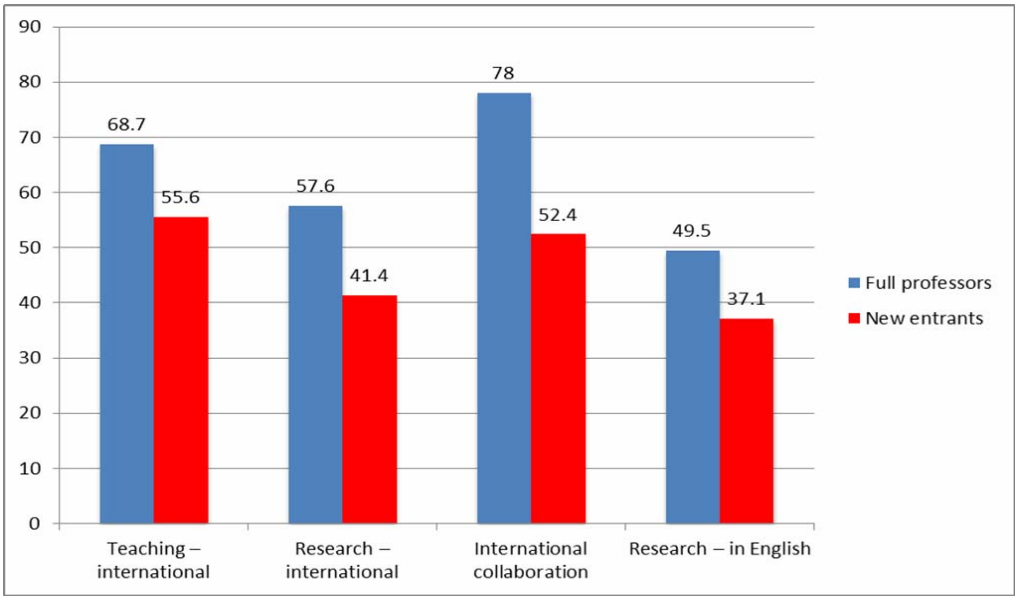
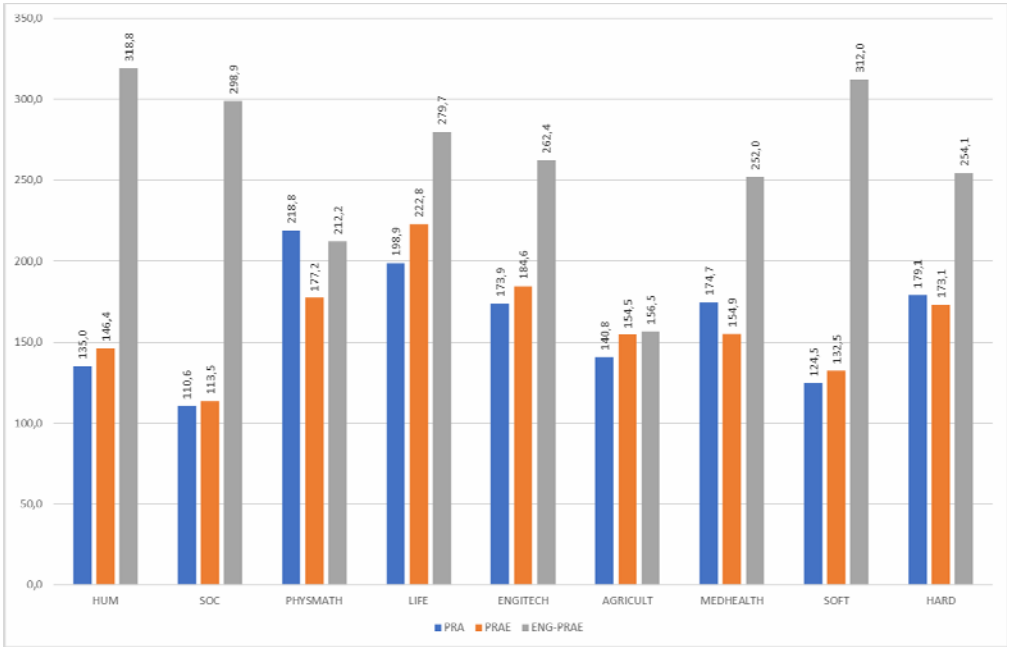


Fig. 7 Research productivity by cluster of academic disciplines: internationalists vs. locals, Poland (productivity of internationalists as percentage of productivity of locals: LOC = 100%). Only academics employed full-time in the university sector and involved in both teaching and research. The average number of peer-reviewed articles (PRA), peer-reviewed article equivalents (PRAE), and English language peer-reviewed article equivalents (ENG-PRAE) published in a three-year reference period. For all clusters, the results are statistically significant (in %). LOC = 100%.



Lessons learnt from large-scale international comparative academic profession studies

Scope of lessons learnt

- The lessons will refer to:
  - **team-work** type of international research and its limitations;
  - type of research produced within **confined periods of time (deadlines, deliverables, reports etc.)**;
  - limitations of self-produced **international datasets (primary data)**;
  - limitations of **multi-country surveys**, multi-country **interviews**, and their national variations;
  - research-**funding** and **project-imposed** constraints;
  - limitations in focus, sample and methods of **collaborative** (academic profession) research.

Lessons Learnt: Generic limitations – comparative HER (1)

- **Generic limitations** linked to cross-country comparisons in higher education in general, given the **differences in academic traditions** across national systems.
- Moving **from single-nation studies to cross-national studies**, which involves the emergence of **international datasets** and the institutionalization of cross-national research, introduces still new challenges.
- **Analytical frameworks** in higher education research have mostly been produced for **national, rather than cross-national, interpretive purposes**.
- The **knowledge base for cross-national studies increases** but international comparative research in higher education is **seldom grounded in ideal research designs with clearly defined hypotheses.**

Lessons Learnt: Generic limitations – comparative HER (2)

- Datasets such as ours are clearly **produced in heterogeneous national higher education settings**: national academic **traditions** lead to **strong differences** in
  - national **career opportunities**,
  - **research funding availability**,
  - **dominant missions** in various institutional types,
  - **dominant academic activities** in various system **subsectors**,
  - **preferred academic role orientations**,
  - **favored publication outlets**, etc.
- The **meanings of such basic terms** as, e.g., '**professor'**, '**young academic'**, '**competitive** research funding' and '**academic duties'** differ from country to country and must still be translated into a **common set of concepts** to organize data analysis.
- A **tacit assumption** that the major concepts used in the survey instrument in all systems **have a somehow similar definition**.

Lessons Learnt: International Comparative Reseach Projects (1)

- Huge differences between **original design** and planning – and **project execution. Always work in progress…**
- **Non-linearity, unexpectedness, contingent events**, unforseeable challenges, (missing/smaller funding and/or teams).
- **Ill-timed budgets, ill-planned deliverables, delayed publications** (multi-authored, multi-country etc.).
- **International** project execution – **national funding and deliverables**. Conflicting timing.
- **Inherent risks of underperformance**, distractions, low-quality comparative analyses…
- **Critical junctures in the project execution underestimated**: final survey questionnaire (readability), final interview questionnaire – in **national** languages. Inability to expect far-reaching consequences in sampling, item formulation…

Lessons Learnt: International Comparative Reseach Projects (2)

- **Different types of academics** drawn to the project for **different purposes**: short-term, long-term, financial, prestige-related, accidental…
- **Different assumptions** about where the project is **heading in terms of research and publications**… publication types… publication outlets (edited books, top-tier journals, low-tier journals; national and international) etc.
- Differences by country and **language, by generation of academics** (established vs. young).
- Different **levels of (research) engagement**: *the* project, one of many concurrent projects…
- Different **methodological awarness** and **preparation to advanced statistical analysis,** beyond simle descriptive statistics.
- Tensions in publishing directions: **country reports** (e.g. internationalization in German universities) vs. **comparative thematic reports** (across Europe).

Lessons Learnt: International Comparative Reseach Projects (3)

- **Running out of time**, almost always delayed…
- **A single treasure**: the cleaned, weighed **dataset**…
- **But still under-utilized 500 interviews (in 6 langauges!).** „Interview reports" not really working – a huge investment – time and resources – still under-utilized. Technical competence and manforce and time…
- What should be different next time?
  - Strong international **leadership**, strong national leadership, full-time staff **involvement** and open national **funding**; **flexibility** in research expectations and research design; clear **basic science** (rather than applied science) approach…
  - **Awareness of a long journey – science takes time, good science takes even more time…**

- *Thank you for your attention!*