RISIS
Research infrastructure for research and innovation policy studies

SEVENTH FRAMEWORK PROGRAMME

WP 8. Register of Public-sector research organizations

Benedetto Lepori

Centre for Organizational Research

Università della Svizzera italiana

Università della Svizzera italiana

Facoltà di scienze economiche

Timeline

General introduction to the register (B. Lepori)

- Reading of the handbook

Specific activities

- demography using EUPRO (B. Heller-Schuh)
- PROs: approach for the register (L. Sanz)
- Funding agencies (E. Reale, B. Lepori)

Pilot on linkages and subunits (E. Noyons, E. Iversen).

Next steps and planning

WP8. Harmonization of datasets centered on organizations

- Organizations as a growing issue in research and innovation policies
- Harmonization of names in order to allow for matching between datasets
- Tracking organization over time

Register: response to these issues for the public sector

- Issues for the private sector to be addressed as a second step.

Register

- A reference list of organizations
  - Including Ids
- Tracking demographic changes over time
- Providing *minimal* information on the organizations
  - To allow for matching with other datasets

Advantages

- Easy matching/combination of data between different facilities
  - Matching through the register Ids
- A reference list of the population of organizations
  - In order to assess coverage and define samples
- Tracking organizations over time
  - Interesting per se and required for panel studies

Key issues

- Definition of organization and identification
- Types of organizations and perimeter
- Demography
- Organizational characteristics
- Subunits and linkages
- Implementation

Remark: the current version of the handbook tries to provide some general solutions

- Which will need to be refined step by step when implementating the handbook

Definition of organization

An entity which produces and delivers bundles of services and which enjoys of some autonomy in decision-making

- Not necessarily a legal entity
- Hierarchy and organizational structure

(similar to the practice of the BUR)

In practice: whole HEIs and PROs.

Each organization receives a unique ID stable over time which identifies it uniquely.

Perimeter

- Research (and/or tertiary education) as a major activity
- Public-sector function (not legal status)
- Size threshold to keep the register manageable (dependent on the type)

Specific choices to be made for each type of organizations

Types of organizations

- Higher Education Institutions (HEIs)
  - Following ETER
- Research Funding Organizations
  - Distributing public research funding
- Umbrella Public Research Organizations
  - Large national research organizations
- Public Research Organizations
  - Coverage to be defined
- Selective inclusion of other public-sector organizations (hospitals)

Demography

- Key distinction between
  - Demographic events: the organization changes
  - Changes of characteristics of the same organization

Examples:

- Fachhoschule Zentralschweiz > Hochschule Luzern: no demographic change and the same Ids.
- Aalto university: merger of three preexisting universities > demographic change

Demographic changes are handled through changes in the identifiers:

- Allow tracking the organization even if attributes change

Characteristics are tracked yearly (either in the register or in the linked databases):

- Allow matching with other databases

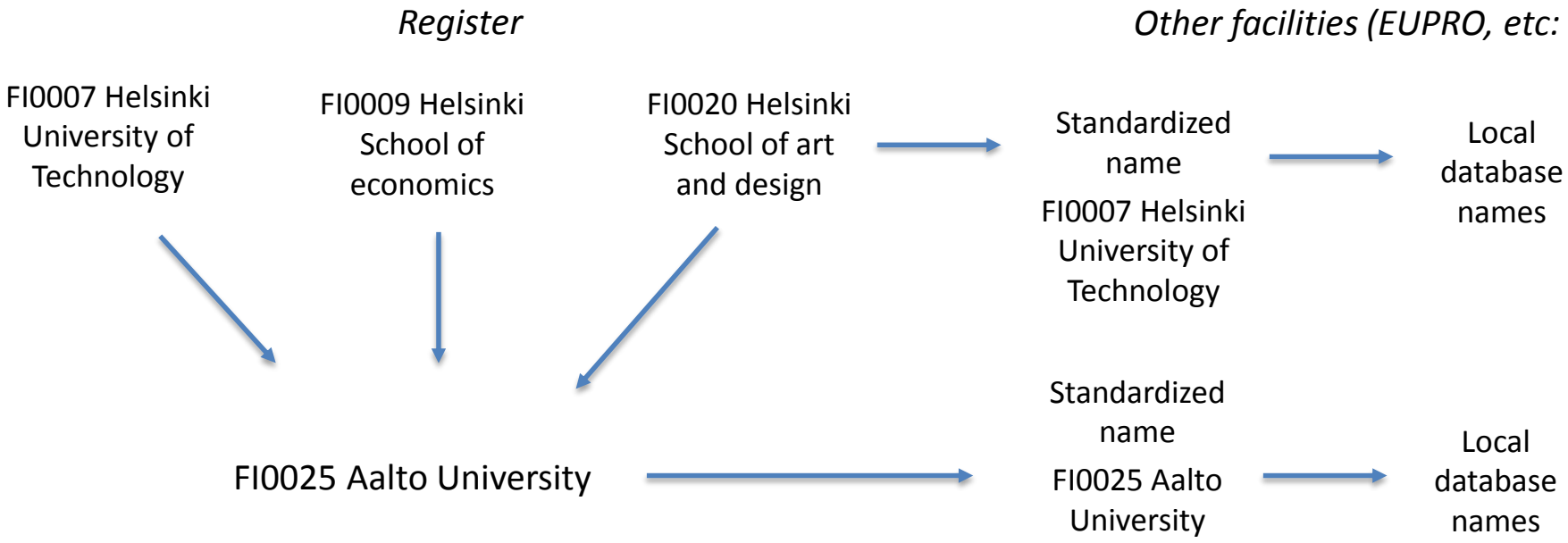
There can be ambigous/borderline cases between organizational and characteristics changes!

Types of demographic events

- Foundation
- Closure
- Merger
- Split
- Take-over
- Spin-out

New Ids are attributed to newly created organizations, old Ids are not reused

How it will work



- The register keeps standard names of organizations which are then matched with the local database names from the different facilities (as related to their underlying data sources) > this allows matching with high precision databases
- The introduction of Ids keeps continuity in cases when the name changes for legal reasons (college > university) while the institution stays the same
- Demography allows connecting multiannual layers in order to contruct clean panel data for longitudinal analysis (essential to analyze causality)

Organizational characteristics

- A minimum to allow for identification/matching
- Changes tracked over time
- Proposed list
  - Organizational name (national language + English)
  - Country of legal establishment
  - Acronym
  - postcode and city of legal seat
  - Website (no tracking over time)

Same ID = same organization

Different names depending on the period

Organizational_characteristics_table										
ID	OrgID	Startyear	Endyear	OrgName	OrgNameE	CountryID	Postcode	City	TypeId	Remarks
18	CH0016	2008	2014	Hochschule Luzern	University of Applied Sciences of Lucerne	1	6002	Luzern	1	name changed to Hochschule Luzern in autumn 2007
21	CH0016	1997	2014	Fachhochschule Zentralschweiz	Lucerne University of Applied Sciences and Arts	1	6002	Luzern	1	name changed to Hochschule Luzern in autumn 2007

Subunits and linkages

- Register assumes well-defined organizational perimeters

- No systematic follow-up of organizational subunits
  - Register covers only whole organizations
  - But a few relevant cases might need tracking
  - Especially when perimeter differs by indicator

- Linkages between register organizations
  - Ex. CNRS-Universities UMR
  - Will need to be tracked when this is relevant

Goal: identify the relevant cases so that users can devise solutions when exploiting data

- See the presentation on the pilot (CWTS and NIFU)
- Can be integrated as a second step in the register

Other features

- Tracking relevant policy reforms
  - Explaining collective demographic changes
- Providing documentation and metadata
  - Perimeter description by country
  - Demographic coverage by countries

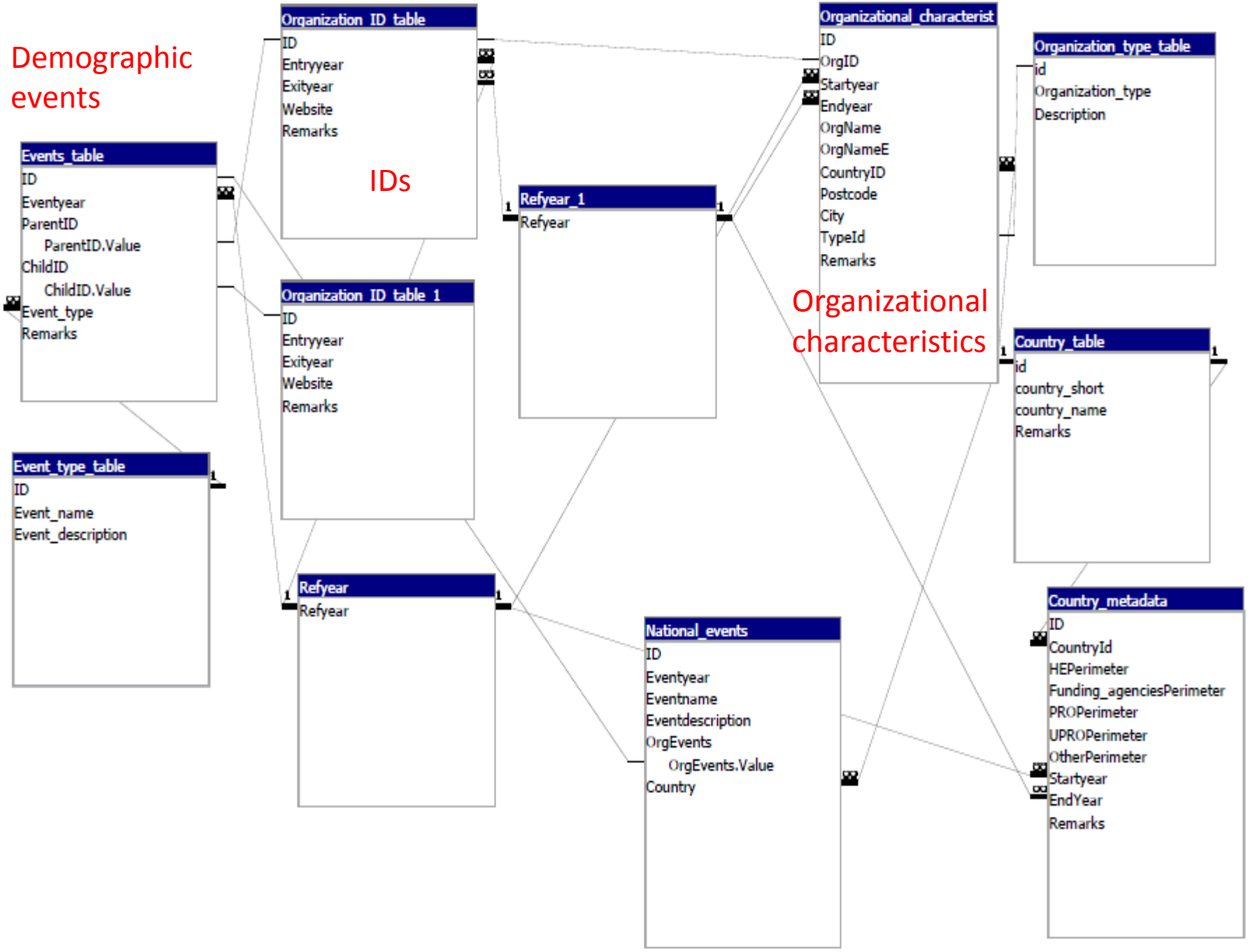
This information will be directly integrated in the register itself

Implementation issues

- Technical implementation of the register
- Population of the register
  - Including demography
- Linking with other RISIS datasets

Technical implementation

- A relational database including tools for updating, checking consistency, etc.
- WWW interface for searching and downloading
- Prototype implemented in MS Access
- Migration on other database tools to be discussed at a later stage


Demographic events
Organization_ID_table
ID
Entryyear
Exityear
Website
Remarks
IDs
Organizational_characterist
ID
OrgID
Startyear
Endyear
OrgName
OrgNameE
CountryID
Postcode
City
TypeId
Remarks
Organization_type_table
id
Organization_type
Description
Events_table
ID
Eventyear
ParentID
ParentID.Value
ChildID
ChildID.Value
Event_type
Remarks
Refyear_1
Refyear
Organizational characteristics
Organization_ID_table_1
ID
Entryyear
Exityear
Website
Remarks
Country_table
id
country_short
country_name
Remarks
Event_type_table
ID
Event_name
Event_description
Refyear
Refyear
National_events
ID
Eventyear
Eventname
Eventdescription
OrgEvents
OrgEvents.Value
Country
Country_metadata
ID
CountryId
HEPerimeter
Funding_agenciesPerimeter
PROPerimeter
UPROPerimeter
OtherPerimeter
Startyear
EndYear
Remarks

Population of the register

- HEIs
  - ETER as a baseline (2012/2011/2009)
  - Demography to be reconstructed using EUPRO + web searches
  - Proceed country by country

- RFOs/UPROs: register to be built in parallel to the PREF contract

- PROs: to be discussed

Target coverage:

- EU-28 + associated countries (to be discussed)
- Demography: from 1980 (but there might be exceptions)

Linking with other facilities

- Linkage is made by introducing the register Ids in the other facilities
- Requires some technical changes in the facilities
  - Introduction of a specific organizations table (stable over time)
- Uniformization of names within facilities remains central
- Target facilities
  - Organizational facilities: ETER, EUPRO, Leiden ranking, JOREP
  - Facilities where organizations have to be introduced: MORE, etc.

We need to discuss how this will be done and implementation plan.

Timeline (tentative)

- Phase 1. Methodology (handbook) until March 2015
  - Further refinements possible

- Phase 2. Development of the pilot
  - Introduction of ETER data on HEIs
  - HEI demography using EUPRO
  - RFOs and UPROs

First release of the register by autumn 2015.

- Phase 3. Full register implementation
  - on-line publication
  - Integrating PROs
  - Linkages and subunits

Until mid-2016.

THANK YOU VERY MUCH FOR YOUR ATTENTION