

*Using data for management of internationalization
and international offices*

Strategic Partnership Project

HEIDA Project

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Erasmus+ Annual Conference

Çankırı, Turkey



**KOÇ
UNIVERSITY**

UAB
Universitat Autònoma
de Barcelona



Mednarodna fakulteta
za družbene in poslovne študije
International School
for Social and Business Studies
Celje · Slovenia · Europe

What is HEIDA?

- **EC Project Number:** 2014-1-TR01-KA203-013128
- **Funded by:** [Erasmus+ KA2 Strategic Partnerships](#)
- **Duration:** 24 months (Dec 2014 – Nov 2016)
- **Total budget:** 158.837 EUR
- **Project coordinator:** Koç University, Turkey
- **Key topics/keywords:**
 - Data Driven Decision Making, Evidence based decision making
 - Information sharing at institutions; organizational management
 - Internationalization at Institutions of Higher Education

Why HEIDA?

| Today's realities | Challenges faced by universities |
|--|---|
| HEIs are more complex | Monitoring information about internationalization activities and outcomes beyond student mobility, international students or other basic indicators |
| Most institutions have as a strategic goal internationalization | Limits to what faculty and staff are prepared or able to do with limited time, resources and awareness of past, current and future efforts |
| Senior managers need to make decisions based on experience and data | Need to develop better analysis of performance in a user-friendly way and tell the institutions' story and strengths in a better way |

“You can’t manage what you don’t measure.” (either W. Edwards Deming or Peter Drucker)

Perspectives in internationalization

| Perspectives | Defining elements |
|------------------------|--|
| As an activity | International activities that are developed: teaching, research, technical structures and international students, collaboration programs, inter-institutional agreements, projects and campus, other. |
| As a competence | New knowledge, competences and skills, students' and professors' attitudes and values required by the internationalization. The focus is on human dimension rather than on academic activities or organizational aspects. |
| As an ethos | It assumes a culture that permeates all international and intercultural initiatives. Some authors consider this perspective as too limited since it does not include details about how the internationalization objectives could be achieved. |
| As a process | The integration of the international and intercultural dimensions through combining a series of activities, policy and procedures. The internationalization appears as an integration process of different dimensions and activities in Higher Education Institutions. |

Source: Delgado-Márquez, Hurtado-Torres cited in Bondar (2011).

Project activities

| Phase | Activity | Status |
|---|--|---|
| 1st Phase Design Dec 2014-May 2016 | Literature review and 3 case studies | Report available here |
| | Stakeholder focus groups in Turkey, Slovenia and Spain | Report available here |
| | Online survey of European universities | Survey results summary available here |
| 2nd Phase Testing May -Aug 2016 | Develop HEIDA data management tool | Web-based, open-source software tool available here |
| | Develop online training module | Web-based (moodle) in EN, TR, SL, ES available here |
| 3rd Phase Dissemination July – Nov 2016 | Dissemination in each partner country | Summary of activities here |
| | HEIDA Tool launch conference in Istanbul | Conference sessions available here |
| | Final reporting | Available here |

Project short term (outputs)

- web-based **tool (HEIDA Tool)** to choose relevant **goals, indicators and data, compare and visualize across time**
 - Open-access software (free to install, use and maintain)
 - Adaptable to each university's needs
 - Easy to search, export and visualize data
 - **Needs more development on the data input aspect**
- An online **training resource** for staff:
 - Moodle e-classroom in English, **Turkish**, Slovenian and Spanish
 - Internationalization goals and use of indicators and data
 - Data management practices
 - Effective decision making for internationalization

Project long-term expected benefits at HEIs

Increasing awareness
of the value of using
and sharing for
organizational
development and
better decision making
in the process of
internationalization of
universities and other
higher education
institutions



Promoting a
collaborative working
culture between
administrative and
academic units at
partner organisations



Supporting higher
education staff to
develop abilities in
data collection and
analysis for
internationalization

Project long-term expected benefits at HEIs

- Get better at ‘mapping’ and sharing information about our international activities across the university.
- More capacity to:
 - Choose and develop **strategic international partners**
 - Use our **alumni networks** overseas
 - Give more students **study abroad opportunities**
 - Attract more students from **key regions/institutions**
 - Influence government **policy** in areas like research, curricula, migration, etc

Type of management activity and use of data

Source: Verbiest & Mahieu 2013, 22.

| Type of management activity | How to use data and what type of data is required |
|--|---|
| Diagnosis and teaching – learning problems clarification (individual or group decision-making) | Analyze how and how and for what purpose the students' learning match the standards set by the system. |
| Establish alternative lines of action (internal use) | University managers use data in order to evaluate programs or curricula approaches and to analyze its potential compared to other alternative programs. |
| Justifying taken decisions (external purposes) | The data (eg. relating to: characteristics of students, learning outcomes, program benefits, etc.) is used selectively in order to justify the opportunity of the measures taken based on them. |
| Contrasting with other information requests (especially with external purposes) | University managers carefully generate the information required by external agencies, authorities or funding groups, for example: the description of how the groups operate or how they are assessed. |
| Report daily practice (internal purposes) | Data is used by administrators and teachers in order to guide internal practice. Data can be formal or informal and they can be analyzed and interpreted directly by academics to refine their teaching process. |
| Manage meanings, culture and motivation (internal purposes) | Data help university managers to better understand and to guide cultural aspects at the workplace, showing teachers how the organization accomplishes its objectives, what it is taking into account in their work and what kind of professional learning needs exist . |

Factors that influence in decision-making based on data

- ✓ Data accessibility;
- ✓ Quality of the data (real o perceived);
- ✓ Motivation in using data;
- ✓ Ability and Support;
- ✓ Curricular pressure;
- ✓ Time constraints;
- ✓ Organizational culture and leadership;
- ✓ History of the status of accounts.

Need of collecting data on internationalization

1. Goal dimension: to enhance the quality of education

- **ex.** Out of all students in the unit, what is the proportion of studies abroad in a given year?

2. Goal Dimension: to enhance the quality of research

- **ex:** In a given year, what proportion of researchers in the unit is involved in at least one research project with an international partner?

3. Goal dimension: to well-prepare students for life and work in an intercultural and globalising world

- **ex:** Out of all students in the unit, what proportion of studies is abroad in a given year?

4. Goal dimension: to enhance the international reputation and visibility of the unit

- **ex.** Does the unit have a specific organisational structure to support internationalization?

5. Goal dimension: to provide service to society and community social engagement

- **ex:** Out of all students in the unit, what proportion of studies is abroad in a given year?

6. Overall goal dimensions:

- **ex:** Does the unit have a specific organisational structure to support internationalization?

Institutional Context Analysis

- Documentary analysis work
- Interviews with Managers from International Office, Research Office, IT, Colleges, Academic Affairs, Student Affairs and others
- Multiple tools for data collection
- Multiple agents involved in data collection

Goal 1 To enhance the quality of education at University X/College X

Output In 2014 we sent 10 undergraduate students on Erasmus exchange to University Y in Z country

Outcome In 2016, 4 of these students graduated after completing research projects in topics they were introduced to at University Y.
2 of these students went to do Master programs in the areas related to this research

Impact By 2020 1 of these students was an advanced PhD candidate carrying out research in cooperation with both University X and University Y. This project

Goal 2 To enhance the quality of research at University X/College X

Output In 2005 the college welcomed 12 visiting researchers from different countries

Outcome In 2010, 7 of these researchers continued to collaborate in research activities after returning to their home institution

Impact By 2012 the College's researchers had published 10 pieces (book chapters, articles in peer reviewed journals) with the visiting researchers in international scientific publications

Goal 3 To prepare students for life and work in an intercultural and globalised world

Output

In 2007, X Department sent 37 students (30% of its study abroad quota) to study abroad for a period of 3 months or longer

Outcome

95% (35 students) obtained proven intercultural communication skills in the foreign setting measured by pre- and post- study abroad period evaluation

Impact

In 2011 5 of these students (14%) were employed within 6 months after graduation in which their employer rated their intercultural communication skills as “good” or “very good”

Goal 4 To enhance the international reputation and visibility of University

Output Every year between 2002-2010 the University increased the number of highly qualified international professors by 10-15%

Outcome In 2006-2010 the university obtained accreditation in key high-visibility fields, and raises its standing in key rankings, in part due to the increasing quality of academic programs offered by an increasingly international professoriate

Impact In 2011 the University demonstrates a clear market advantage over its competitors in the country, attracting high levels of research funding, new top level professors and highly competitive students

Goal 5 To provide service to society and community social engagement

Output

In a given year at least 20% of students graduating that year have enrolled in one international service learning module at least once during their studies

Outcome

Of these students who have participated in an international service learning modul, 50% have gained demonstrable insight into societal needs and the application of academic research to non-academic settings

Impact

Five years after graduation 25% of the students who did an international service learning module hold positions of responsibility in NGO's or other socially oriented organizations

The HEIDA Tool

What is it?

- Web-based tool
- Login using existing university profile username
- **3 types of users:**
 - **Admin:** «owner» of tool (eg International Office)
 - **Editor:** «content providers» of the tool (eg. Academic Coordinators, Unit Managers)
 - **Viewer:** «users» of the tool (eg. professors, communications staff, prospective students, partner universities, funding agencies, etc)
- A public and internal interface

The HEIDA Tool

- Database objects:
 - **GOALS:**
 - 5 goals for internationalization
 - **GROUPS:**
 - 9 groups that represent an aspect of a higher education institution
 - **SUBGROUPS**
 - 22 subgroups that represent more specific aspects of internationalization / dimensions of internationalization
 - **INDICATORS:**
 - All have a unique code (eg. 01-001)
 - Indicator name is written as a question (eg. «*What proportion of staff members in the unit has work experience abroad of at least six months?*»)
 - 2 types: Yes/No, Numerical (absolute, ratio, %)
 - **DATA MANAGEMENT CRITERIA**
 - 8 questions/criteria
 - Some Y/N, some are multiple choice
 - Customisable list of options but fixed criteria

The HEIDA Tool

The internationalization goals

- G-01 to enhance the quality of education
- G-02 to enhance the quality of research
- G-03 to well-prepare students for life and work in an intercultural and globalising world
- G-04 to enhance the international reputation and visibility of the unit
- G-05 to provide service to society and community social engagement

| GROUP | SUB-GROUP | INDICATORS |
|---|---|------------|
| RESEARCH | <ul style="list-style-type: none"> Institutional profile Patents Publications and Citations Researcher activity Researcher profiles Visiting researchers | 56 |
| STAFF | <ul style="list-style-type: none"> Academic and Non-Academic Staff - Outgoing Staff Academic and Non-Academic Staff - Staff from Abroad Academic and Non-Academic Staff General Data Academic Staff Non-Academic Staff | 93 |
| STUDENTS | <ul style="list-style-type: none"> General Student Data International Students Study Abroad | 98 |
| ADMINISTRATION | <ul style="list-style-type: none"> Administration | 37 |
| CURRICULA AND ACADEMIC SERVICES | <ul style="list-style-type: none"> Curricular and Academic Services | 87 |
| FUNDING AND FINANCE | <ul style="list-style-type: none"> Funding and Finance | 39 |
| NON-ACADEMIC SERVICES AND CAMPUS AND COMMUNITY LIFE | <ul style="list-style-type: none"> Services to International Students Services to Staff Services to Study Abroad Students | 57 |
| PROMOTION AND MARKETING | <ul style="list-style-type: none"> Promotion and Marketing | 21 |
| OTHER | <ul style="list-style-type: none"> Other | 1 |

| Criteria 1 | Criteria 2 | Criteria 3 | Criteria 4 | Criteria 5 | Criteria 6 | Criteria 7 | Criteria 8 |
|-----------------------|-----------------------|----------------------|------------------------------------|------------------------|-------------------|--------------------------------|----------------|
| Do we have this data? | Optional or required? | Collection frequency | Who is responsible for collection? | What is this used for? | Quality assurance | Format of collection | Format for use |
| Yes | Optional | Once per year | Academic departments | Academic planning | Yes | Paper | Annual reports |
| No | Compulsory | Once per term | Research departments | Accreditation | No | Excel | Intranet |
| Partially | | Once a month | International office | Membership records | | Own data mgmt software | Website |
| | | Other | HR department | Funding and budgeting | | Commercial data mgmt software | Own CRM |
| | | | Quality assurance department | National statistics | | Open source data mgmt software | Open CRM |
| | | | ICT department | Media and marketing | | Other | Other |
| | | | Finance department | Research | | | |
| | | | Strategic planning | Benchmarking | | | |
| | | | Other | Other | | | |

The HEIDA Beta Tool v.1

- Tool Functions:
 - INDICATOR SELECTION
 - DATA INPUT
 - VISUALIZATION – EXPORT
 - PUBLISH TO WEBSITE / LINK TO WEBSITE
 - QUERY / SEARCH
 - Select **relevant indicators** for your unit (College, Graduate School, whole university, administrative unit)
 - Select **data for current and/or previous years**
 - **Download detailed data documents** if relevant (PDFs, Excel, other)

The HEIDA Beta Tool v.1

Step 1. Select one or more goals from among the five goals presented

- The goals represent the vision of the senior manager of the unit in terms of where they would like to see their unit situated, or how they would like to see it performing, and should be aligned with relevant strategies, policies or plans
- Ask yourself as a manager **“Why?”**—i.e. **why this/these goal(s)?** Having a clear understanding of the institution’s or unit’s context is key to guide a process from which the maximum value can be extracted

The HEIDA Beta Tool v.1

Step 2. Explore the indicators suggested for each goal or from the full indicator list

- As a manager you should establish clear connections between your indicator choices and the overarching goal or goals selected in Step 1

Step 3. Select specific indicators within the categories of interest

The HEIDA Beta Tool v.1

Step 4. Collect data from relevant databases, sources or people, ideally over a period of some years or time cycles.

- Having data for more than one year will facilitate some sense of trends rather than one-off “snapshots”.

Step 5. Examine the data in light of the selected goal(s).

- What are the short-term results or outputs?
- What are the proven effects or apparent tendencies, beyond the immediate results or outcomes?
- What is the perceived longer-term result or impact?

Who uses the HEIDA tool and online training?

- **Senior Management** (Presidents/Rectors/Vice Presidents or Vice-Provosts)
- **Directors of Administrative Units** (Alumni, Careers, Admissions, International Office, Academic Affairs, Communications and Marketing)
- **Professors with international cooperation responsibilities** (Deans, Directors, Erasmus Coordinators)
- **Coordinators** at administrative and academic units

HEIDA ONLINE TRAINING MODULE

- Available from Moodle classroom [here](#)
- Open access
- Languages: ENGLISH, SPANISH, SLOVENIAN, **TURKISH**

 **NAVIGATION**

-  Home
-  Site pages
-  Current course
 -  **HEIDA (EN)**
 -  Participants
 -  General
 -  Chapter 1
 -  Chapter 2
 -  Chapter 3
 -  Courses

HEIDA (EN) - Data Management and Decision-making: Applications for Internationalization in Universities



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 About the HEIDA training module

HEIDA ONLINE TRAINING MODULE

CHAPTER 1 ORGANIZATIONAL DEVELOPMENT

- Chapter opens a discussion on data use in a data rich world. As new technologies make it possible to collect, manage and maintain massive numbers of “big” data, questions about their limitations and the need of “small” data might be raised on the other hand. The module opens dilemmas on how and why data are used for in higher education institutions.

CHAPTER 2 DECISION MAKING & USING DATA

- The chapter focuses on the importance of the evidence-based decision-making in university management mostly related to teaching activities. Also, in the chapter, the debate on the importance of collecting data on internationalization of teaching and the advantages that could be brought are being promoted.

CHAPTER 3 HEIDA TOOL AND OTHER FREE DATA MANAGEMENT RESOURCES

- Measurement indicators are a structured mechanism for gathering different kinds of data which, particularly when compared over time, may point to trends or allow for a comparison of performance within or across institutions/units. HEIDA tool makes it possible to measure the performance of higher education institutions in the field of internationalization.

Additional tools and resources

| Resource topic | Description | Name/Link | Observations |
|--|---|--|---|
| Introduction to Data Analysis using Excel | Introduction to Reporting in Excel: Excel Tables, Basic Pivot Tables, Dashboards, Comparing Year over Year in Pivot Tables, Reporting Hierarchical Data, Introduction to multi-table pivot tables and the data mode | Microsoft's DAT205x | Hosted on Edx and delivered by Microsoft You can take the course at your own pace |
| Data Analysis: Take it to the MAX | EX101x is for all of those struggling with data analysis. We will take a deep dive into data analysis with spreadsheets: PivotTables, VLOOKUPS, Named ranges, what-if analyses, making great graphs. After, we will investigate the quality of the spreadsheet model, and especially how to make sure your spreadsheet remains error-free and robust. Finally, we will demonstrate other ways to store and analyze data. We will also look into how Python, a programming language, can help us with analyzing and manipulating data in spreadsheets. | DelftX's EX101x | Hosted on EdX and delivered by Delft University You can take the course at your own pace |
| Data Analysis: Visualization and Dashboard Design | Advanced data analysis course if you have already sharpened your spreadsheet skills in EX101x Data Analysis: Take It to the MAX(). This course covers importing, summarizing, interpreting, analyzing and visualizing data. Most techniques will be taught in Excel with add-ons and free tools available online. EX102x will be created using Excel 2013, but the course can be followed using another spreadsheet program as well. | DelftX's EX102x | Hosted on EdX and delivered by Delft University You can take the course at your own pace |
| Practical Learning Analytics | Introduction to learning analytics in higher education. To keep it practical, we will focus on using traditional student record data, the kinds of data every campus already has. To make it interesting, we will address questions raised by an array of different stakeholders, including campus leaders, faculty, staff, and especially students. To provide analytic teeth, each analysis we discuss will be supported by both realistic data and sample code. | Practical Learning Analytics | Hosted on EdX and delivered by University of Michigan You can take the course at your own pace |

Additional tools and resources

| | | | |
|---|---|--|--|
| Frameworks for the Assessment of Internationalisation | <p>Methodology to assess the quality of internationalisation in higher education. The overall aim of the project partners was to assess, enhance and reward internationalisation at higher education institutions.</p> | eQuatic Project | <p>Developed by Ghent University in collaboration with Flemish Higher Education Institutions</p> |
| Data capability toolkit for higher education institutions | <p>The toolkit has four components:</p> <ol style="list-style-type: none"> 1. Data improvement process: a logical flow of steps to assess your current maturity and create a data improvement plan customised for your organisation. 2. Signposting: detailed information and guidance to explain data management concepts and how they fit into the plan. 3. Templates and examples: examples of how to create the collateral for the improvement plan. 4. Query tools: explore benefits, risks, characteristics and gaps. | HEDIIP Data Capability Toolkit | <p>Developed by the Higher Education Data and Information Improvement Programme UK</p> |
| Internationalisation of higher education indicators and assesment | <p>Examples of how internationalization can be monitored that include guides, projects, toolkits and other literature</p> | Internationalization of Higher Education Virtual Resource Center | <p>Developed by the International Association of Universities (IAU)</p> |
| Use of student data in higher education | <p>Ethical norms colleges should use in handling the reams of data they're increasingly accumulating about their students' lives in and outside the classroom. The next step in the process would be creating concrete "responsible use of student data" policies for the information on students produced from learning-management systems, automated courseware, registration portals, and other electronic systems.</p> | Responsible use of student data in higher education project | <p>Developed by Stanford University CAROL and Ithaca S+R</p> |
| Self-evaluation of institutional activities and objectives related to internationalisation | <p>MINT is short for Mapping Internationalisation. It is a tool that allows institutions to map their internationalisation activities and objectives through a digital self-evaluation form that generates a convenient outline of various activities and objectives related to internationalisation. Facilities, quality assurance measures and outcomes are also addressed in the evaluation. The tool can be used by higher education institutions or institutional subdivisions such as individual faculties and, in particular, study programmes.</p> | MINT Project | <p>Developed by EP-Nuffic Netherlands</p> |

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- Email the team heida@ku.edu.tr
- Check the project website
<https://heida.ku.edu.tr/>