Informatics education in Europe: institutions, degrees, students, positions, salaries. Key Data 2009-2014

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INFORMATICS
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An Informatics Europe Report

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- *Informatics Education in Europe: Institutions, Degrees, Students, Positions, Salaries. Key Data 2008-2013* (2014, Cristina Pereira, Bertrand Meyer, Enrico Nardelli, Hanne Werthner).
- *Informatics Education in Europe: Institutions, Degrees, Students, Positions, Salaries. Key Data 2008-2012* (2013, Cristina Pereira and Bertrand Meyer).
- *The Role and Relevance of Experimentation in Informatics* (2013, eds. Jan van Leeuwen and Viola Schiaffonati).
- *Informatics Doctorates in Europe - Some Facts and Figures* (2013, ed. Manfred Nagl).
- *Informatics Education in Europe: Europe Cannot Afford to Miss the Boat* (2013, joint report with ACM Europe, ed. Walter Gander).
- *Research Evaluation for Computer Science* (2008, eds. Bertrand Meyer, Christine Choppy, Jan van Leeuwen and Jørgen Staunstrup).
- *Student Enrollment and Image of the Informatics Discipline* (2007, eds. Jan van Leeuwen and Letizia Tanca).

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ABOUT THIS REPORT

The publication in 2013 of the first Key Data Report on Informatics Education in Europe, covering the 2008-2012 period, was a milestone event. For the first time policy makers, education and research professionals and the general public could obtain precise information on the state of education in the area of highest importance for the future of Europe: Information Technology. Instead of relying on rumors and guesses, discussions and decisions could now take advantage of verified data on the key parameters in various countries, beginning with the exhaustive list of institutions offering education in the field and continuing with a precise description of the degrees offered, the student and graduates numbers at every level, with distribution by gender, the maze of faculty and researcher positions and titles, and the most controversial topic of all: faculty and researcher salaries. Encouraged by the community's enthusiastic reception, we have continued, updated and improved the work, enlarging its scope and coverage producing in 2014 a second edition of the report.

Like its predecessors, this report, the third edition of the series, emanates not from a government body or a group with a specific political agenda, but from professionals in the field, represented by Informatics Europe (the association of academic and industrial research institutions in the field), with the sole purpose of furthering the understanding of the discipline's parameters through the provision of basic, factual data.

Informatics Education in Europe: Institutions, Degrees, Students, Positions, Salaries. Key Data 2009-2014 provides an impressive picture of the state of Informatics education in Europe today. Based on an enormous amount of information from representative countries, it presents a wealth of fundamental data, starting from a list of institutions awarding degrees in the field and continuing with student enrollments, degrees awarded, gender information, academic titles, as well as precise and much-needed data about academic salaries across European countries.

This third edition has added a number of countries to those already covered. Thanks to the active participation of new collaborators, acknowledged below, the report now covers Greece, Latvia and Spain in addition to the countries in the previous edition (Austria, Denmark, Germany, Ireland, Italy, Netherlands, Switzerland, UK, Turkey, and France for salaries). In all countries, the descriptions have been not only updated but improved in numerous respects to provide the reader with an accurate picture and enable meaningful comparisons. As in the second edition we also present data about Universities of Applied Sciences for countries where such institutions exist distinct from traditional Universities.

The Informatics Key Data report series will continue to provide the community with the precise and objective information that is indispensable for understanding the field and making informed, effective policy decisions.

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Table of Contents
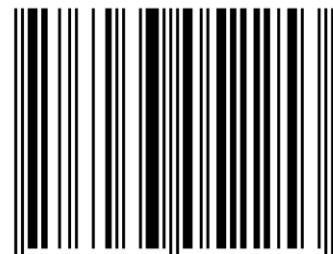
Executive Summary

Informatics, the science behind IT, is a core enabler of Europe's future success. Crucial to that success is the availability of superb Informatics education throughout Europe.

In this report series, the first to attempt a general study of the state of the art in European Informatics higher education, the emphasis is on raw facts and figures rather than deep analysis; it provides the material for such analyses that others may wish to perform. Nevertheless, a number of salient points emerge:

- The field in Europe suffers from a **serious branding problem**. Even after an approximate translation to English, a good dozen terms are used to denote what is fundamentally the same discipline.

- The quantity and quality of available data varies considerably from country to country. In the interest of reliability, this report has mostly used data from countries where a solid and reasonably complete picture could be drawn from official sources. Even when available, the data does not always allow direct comparisons, since definitions and methods of collection vary significantly from country to country. It is important for the field to ensure that **consistent, solid Informatics education data becomes available in all European countries**.

- Informatics is a well-developed academic field, with **hundreds of accredited institutions** training huge numbers of students for bachelor, master and PhD degrees.

- Extrapolating from precise data in specific countries, we come to a rough estimate that **more than two hundred thousand students enroll each year in an Informatics Bachelor program.**

- Overall **over three quarters of a million students are enrolled in Informatics bachelor's programs** across Europe.

- The corresponding estimated figure **for master students is over a hundred thousand.**

- In some countries, the presence of "Universities of Applied Sciences" alongside traditional Universities further **articulates the picture.**

- The **status of faculty** varies considerably across Europe.

- **The salaries vary even more**. Our detailed study of the exact salaries of faculty in eleven European countries **shows, for a similar faculty position, a difference in salaries that can reach a factor of almost ten.** For example a full professor at the top level receives, in some countries, the salary of a high-level industry executive, whereas in others the compensation is more comparable to that of a junior engineer in the IT industry.

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