

# Erasmus Mundus Master in Big Data Management and Analytics (BDMA)

Since its inception 20 years ago, business intelligence (BI) has become a huge industrial area and a significant driver of the economy. It covers many fields of science and technology (data warehousing and mining, content analysis, business process management, etc.) and requires knowledge of information systems, the Web, decision making, software engineering, innovation and entrepreneurship. The **Erasmus Mundus master's degree in Big Data Management and Analytics (BDMA)** ([master's degree website](#)), formerly the **master's degree in Information Technologies for Business Intelligence (IT4BI)**, coordinated by the **Université Libre de Bruxelles (ULB)** and with the **UPC as a participant**, provides students with the comprehensive training required for them to understand, learn and acquire BI skills and develop decision-making strategies for business.

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## GENERAL DETAILS

### Duration and start date

Two academic years, 120 ECTS credits. Starting September

### Timetable and delivery

Mornings. Face-to-face

### Language of instruction

English

Information on [language use in the classroom and students' language rights](#).

### Location

[Barcelona School of Informatics \(FIB\)](#)

### Official degree

[Recorded in the Ministry of Education's degree register](#)

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## ADMISSION

### General requirements

[Academic requirements for admission to master's degrees](#)

### Places

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### Pre-enrolment

To enrol for an interuniversity master's degree coordinated by a university other than the UPC, you must enrol through the coordinating university:

[Université Libre de Bruxelles \(ULB\)](#)

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## PROFESSIONAL OPPORTUNITIES

### Professional opportunities

Business intelligence (BI) has become an important industrial domain that encompasses many scientific and technological fields, including data warehouses, data mining, visual and content analytics and business process management. It requires competencies in information systems, Web science, decision science, software engineering, innovation and entrepreneurship. This master's degree is designed to provide understanding, knowledge and skills in this broad range of fields. Its main aim is to train computer scientists who understand and help to develop the decision-

making strategies of modern businesses.

The posts that graduates of this master's degree often occupy and for which they are in most demand are the following:

- Data analyst/data scientist (typically involving user modelling and personalisation)
- CRM specialist
- Big data decision-making systems engineer
- Specialist in data modelling/hybrid dataflow between different platforms
- Administrator/designer of distributed systems for cloud computing

## Competencies

### Generic competencies

Generic competencies are the skills that graduates acquire regardless of the specific course or field of study. The generic competencies established by the UPC are capacity for innovation and entrepreneurship, sustainability and social commitment, knowledge of a foreign language (preferably English), teamwork and proper use of information resources.

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## ORGANISATION: ACADEMIC CALENDAR AND REGULATIONS

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### European programme

Erasmus Mundus

### UPC school

[Barcelona School of Informatics \(FIB\)](#)

### Participating institutions

[Universitat Politècnica de Catalunya \(UPC\)](#)

[École Centrale Paris \(ECP\)](#)

[Technische Universität Berlin \(TUB\)](#)

[Université François-Rabelais de Tours \(UFRT\)](#)

[Université Libre de Bruxelles \(ULB\)](#) - **coordinating** university

### Academic coordinator

[Oscar Romero](#)

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## CURRICULUM

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