



MDMC

Master in Data Management
and Curation



Welcome MDMC 2026/2027

22 September 2026





MDMC

Master in Data Management
and Curation

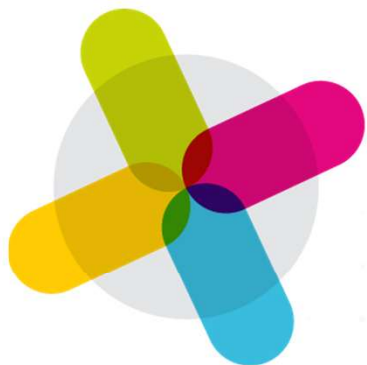


Welcome MDMC 2026/2027

Enrico Longato

22 September 2026





MDMC

Master in Data Management
and Curation



SISSA

- Data Center and HPC [ORFEO](#)
- Research Center
- [Laboratory of Data Engineering – LADE](#)
- [Technology Park](#)
- [Excellence in science](#)
- Pioneer in OA
(hosted ArXiv servers, [OA journals](#))
- Other successful Masters programs
([MSC](#), [MHPC](#))

MDMC Directors

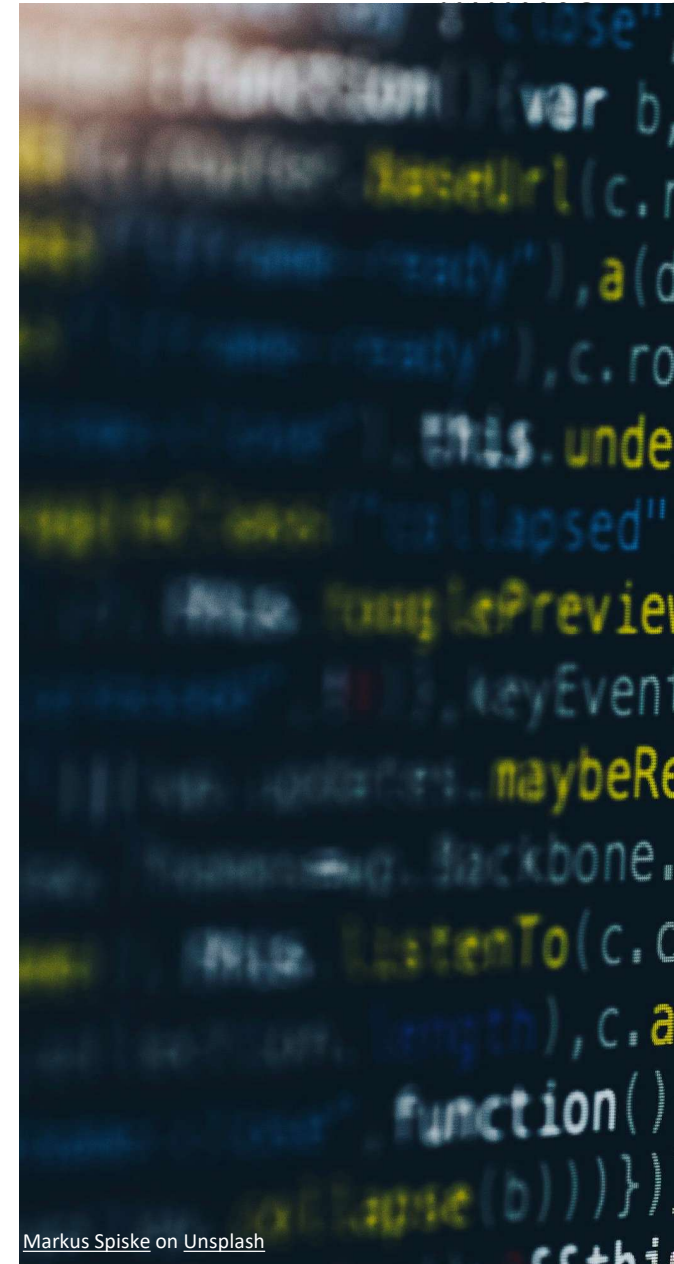
- Stefano Cozzini (AREA)
- Eugenio Piasini (SISSA)



MDMC – Why?

**Data are growing faster than ever.
The real challenge is not their
quantity, but our capacity to
manage them responsibly**

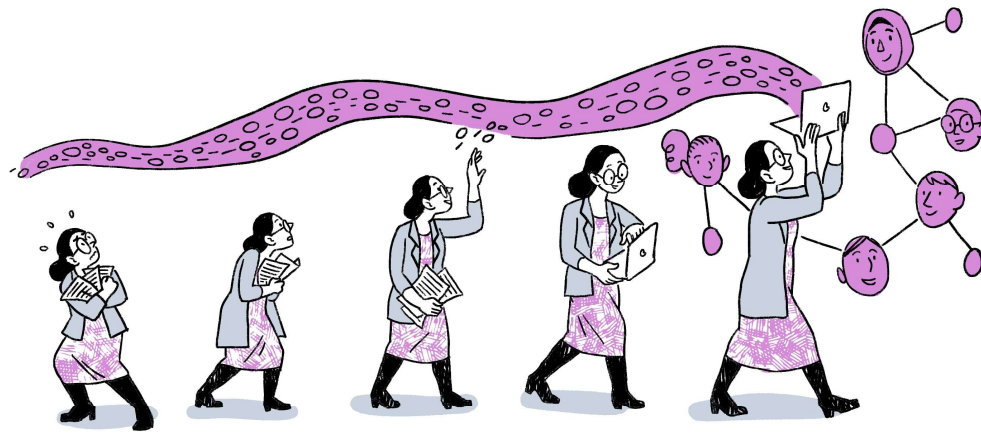
MDMC aims at preparing
participants with the theory and
practice to succeed in this
mission, providing the skills to turn
this challenge into opportunity



Markus Spiske on Unsplash

FAIR-BY-DESIGN METHODOLOGY

DOI [10.5281/zenodo.3332807](https://doi.org/10.5281/zenodo.3332807)



EVOLVING TOWARDS AN
ERA OF
OPEN RESEARCH

Scriberia

The next generation of researchers should be trained and supported to do transparent and reproducible science from day one — that is, to be “open science natives”.

[Open By Design — Open By Design at Stanford \(dsi-cores.github.io\)](https://openbydesign.stanford.edu/)

FAIR data management by design is an approach that ensures the application of FAIR principles from the inception of a project, making the data Findable, Accessible, Interoperable, and Reusable (FAIR) throughout all stages of research data lifecycle.

A GROWING COMMUNITY

EDITION 2025-2026

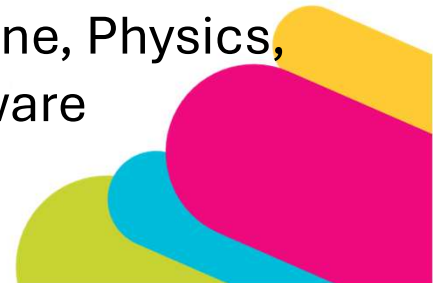
2 call
37 applications
16 students selected
2 PhD, 8 Master, 6 Bachelor
7 countries

Background: Genetics,
Electronics,
Physics, Data Science,
Humanities,
Psychology, Economics,
Mathematics

EDITION 2026-2027

1 calls
54 applications
17 students selected
7 PhD, 4 Master, 6 Bachelor
10 countries

Background: Data Science, Biology,
Functional Genomics, Graphic
Communication, Information Science,
Mathematics, Meteorology and Climate
Science, Molecular Biomedicine, Physics,
Psychology, Translation, Software
Engineering



Course Structure

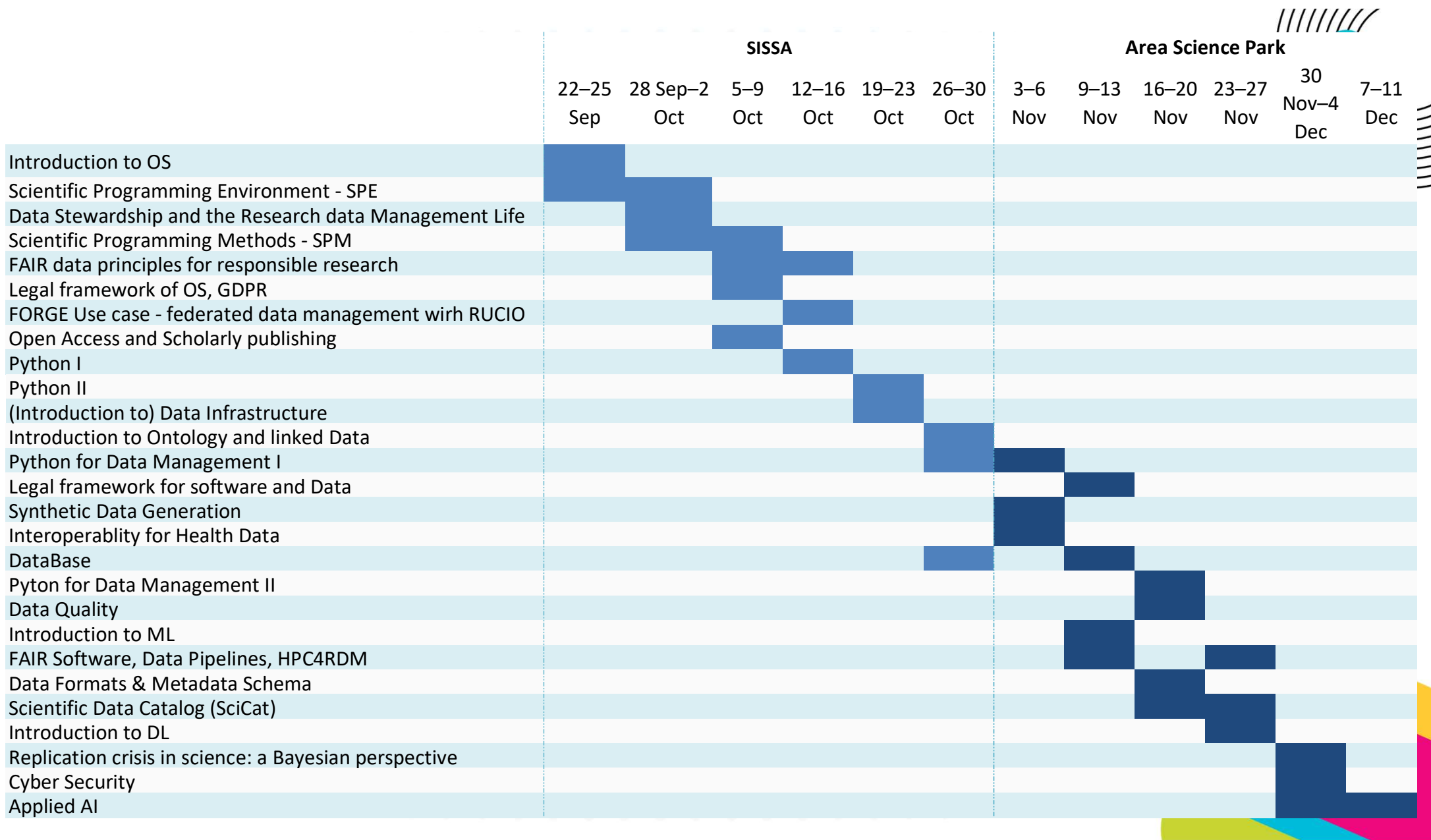
MDMC EDITION 2026-2027

Unlocking the value of data

The MDMC is a full-time program, which consists of 1500 hours of training activities, corresponding to 60 ECTS credits:

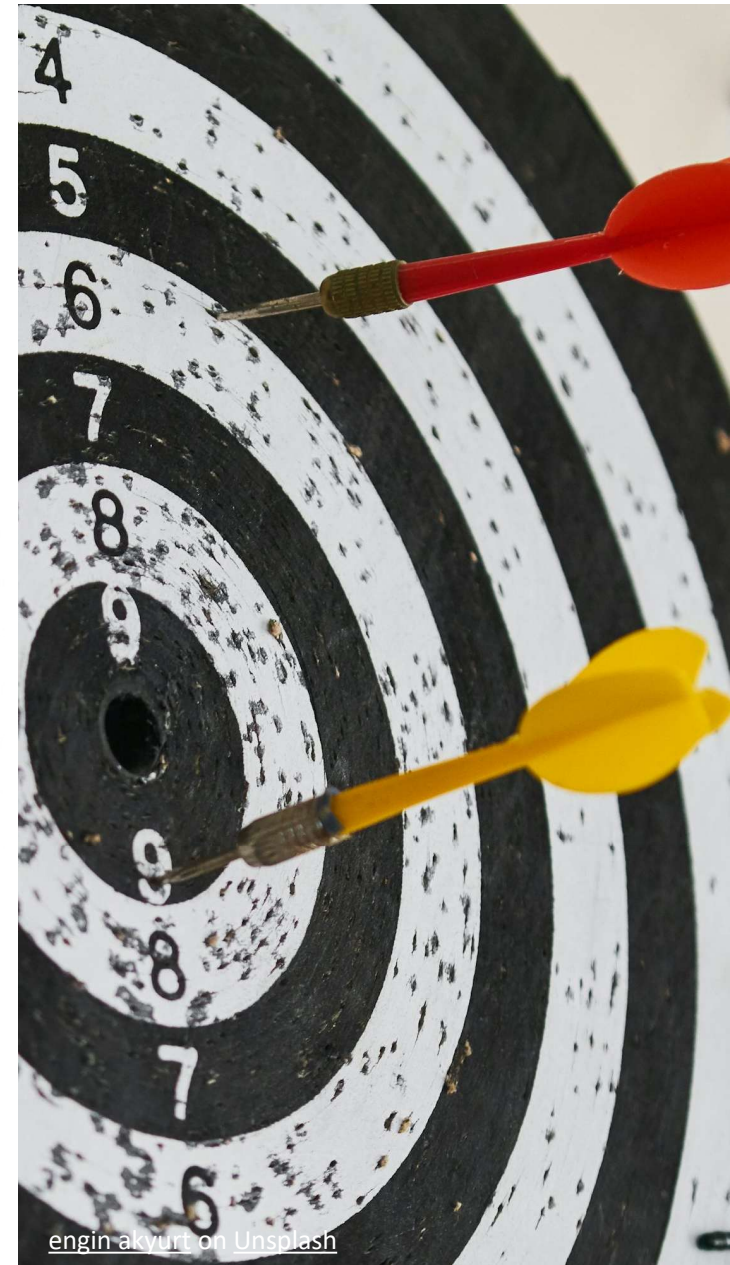
Program Component	Hours	ECTS Credits
Classroom lectures	250	10
Internship	500	20
Final Project (Thesis)	125	5
Individual Study	625	25
Total	1500	60

- **Total Duration:** 10 months, from September 2026 to June 2027
- **Teaching Language:** English
- **Teaching Mode:** In-person, with some remote sessions during the internship period
- **Location of in-presence lectures:** Trieste –Italy
- **Internship:** 6 months of hands-on experience in research laboratories and data-intensive environments
- 70% of compulsory attendance



LEARNING GOALS

- **Master FAIR Principles & Open Science**
- **Curate and Preserve Research Data**
- **Navigate Legal & Ethical Frameworks**
- **Understand AI Fundamentals and Applications**
- **Perform Foundational Data Analysis**
- **Operate as a Data Steward:** Develop practical skills as a Data Steward, Data Engineer or Research Data Manager, adapting the role to career goals and the needs of the host organization.
- **Implement FAIR-by-Design Workflows**
- **Develop Comprehensive DMPs**
- **Manage Metadata Effectively**
- **Utilize Data Management Tools & Technologies**



[enginakyurt on Unsplash](#)

Tools & Learning Facilities

TWO VENUES



Data Center ORFEO (Open Research Facility for Epigenomics and Other), a modern data center that manages and analyses scientific data in an opensource way.

- 30+ CPU compute nodes
- GPU resources for machine learning and model inference
- 5 PB of storage capacity
- Hands-on access for data-intensive research and computing



ACCOUNTS AND COMMUNICATIONS

- Every student has from today a SISSA account guaranteed for the entire duration of the Master
- You will have access to the «MDMC Student 26-27» team on Microsoft Teams
- Please check your email (SISSA) periodically: all the informations and communications will be transmitted through email and Teams
- Your ORFEO account will be based on SISSA email



FAIR-by-design TRAINING MATERIAL

[Master in Data Management and Curation \(MDMC\) AA 2026-2027](#)

- Lectures
- Seminars
- Workshops
- Thesis
- Presentations

[MDMC GitHub repository](#)

- Exercises
- Slides
- Jupyter Notebook
- Developed code



FAIR-by-design TRAINING MATERIAL



All MDMC training material is openly available!!!



New MDMC Website - mdmc-program.it



Master in DATA MANAGEMENT AND CURATION

Unlocking the value of data.

New MDMC Website



[← HOME](#)

About the Program



• Course Details



Structure & Modules

Course Calendar

Internship Opportunities

Projects & Thesis

Assessment

People



Apply



Partnerships



News & Events



Master organised by:



Calendar

Course Calendar

Programme timeline and key academic milestones.

Add the lessons calendar

Use [Add to your calendar \(ICS\)](#) for Google Calendar or when you need to paste a URL into a web service.

Use [Open with calendar app \(webcal\)](#) for Apple Calendar, Outlook desktop, or other calendar apps on your computer.

Both options subscribe to the same calendar: you can remove it anytime from your client.

today



September 2026

month

list

September 22, 2026

Tuesday

10:00 am - 11:00 am **Opening MDMC 2026-2027**
Room: SISSA main building room 003

11:15 am - 01:15 pm **Technical setup**
Room: SISSA main building room 003

02:30 pm - 04:30 pm **Technical setup**

Courses and Syllabus

Coursework

(Introduction to) Data Infrastructure	 LECTURER(S) Federica Bazzocchi	TYPE Core	TOTAL HOURS 4 h
Applied AI	 LECTURER(S) Emanuele Panizon, Maria Pronesti	TYPE Core	TOTAL HOURS 30 h
Cybersecurity	 LECTURER(S) Marino Miculan	TYPE Core	TOTAL HOURS 6 h
Data Formats & Metadata Schema	 LECTURER(S) Federica Bazzocchi	TYPE Core	TOTAL HOURS 6 h
Data Quality	 LECTURER(S) Cinzia Cappiello	TYPE Core	TOTAL HOURS 6 h
Data Stewardship and the Research Data Management Life Cycle	 LECTURER(S) Mariarita de Luca	TYPE Core	TOTAL HOURS 6 h

Completed projects

Completed Projects

Title

Defense Year

Supervisor(s)

In collaboration with

Apply

 **Jacopo Zuppa** **COMPLETED**
2025-2026

Building a FAIR-aligned data-processing pipeline for investigating research artifact availability in high-energy physics studies

IN COLLABORATION WITH: **SISSA Medialab**

 **Ruth Nana Njintang Epee Osaazuwa** **COMPLETED**
2025-2026

Data Extraction Tool for Protein Crystallization Conditions

Supervisor(s): **Valerio Piontoni**

IN COLLABORATION WITH: **Area Science Park, LADE (Laboratory of Data Engineering)**

 **Simone Marchionni** **COMPLETED**
2025-2026

Soon...

[Home](#) / Internship Opportunities

Internship Opportunities

Browse available thesis projects proposed for MDMC students.



Thesis opportunities

Please check back soon to discover available projects for your Master's final project.

INTERNSHIP/THESIS PROJECT PRESENTATION DAY

- 20^o october 2026
- Pitch-style presentations of all project opportunities offered by host organizations
- No classes on that day



MOST IMPORTANT

Participate through questions and comments.

We are open to improving through a critical process where you are the protagonist



MDMC INFORMATION and LINKS

- Website: mdmc-program.it
- Available OPEN material: [MDMC - Zenodo](#)
- Git repository: [MDMC – GitHub](#)
- Email : mdmc@sissa.it

OUR CONTACTS

- enrico.longato@areasciencepark.it
- mariarita.deluca@areasciencepark.it



OGS Istituto Nazionale
di Oceanografia
e di Geofisica
Sperimentale

ARCTUR



REGIONE AUTONOMA
FRIULI VENEZIA GIULIA

E-ARGO

Have a great MDMC edition!