

Data Science Hackathon Workshop 2023  
**Challenges and problem solving with Data Science in  
Natural Resources and Environment**

Public workshop in the scope of the Green Data Science Master programme

**Date: 6th October 2023**

**Time: 09:45h-12:30h**

**Location: ISA, Salão Nobre**

**Workshop Overview:** Join us for an engaging and informative workshop on the application of data science in natural resources and environmental sciences. In this 2.5-hour event, we will explore two data science problems and hear from experts on the challenges and opportunities in these fields. The workshop is open to all the ISA community, and marks the start of the Hackathon project team's work to solve data science application problems.

**Agenda:**

**09:45h - 10:00h: Registration and Networking**

- Participants arrive and sign in.
- Networking opportunities.

**10:00h - 11:15h: Part 1 - Problem Statements and Challenge Briefing**

**10:00h - 10:15h: Opening Remarks**

- Speaker: Rui Figueira (ISA)
- Welcome and introduction to the workshop.
- Brief overview of the day and workshop's agenda.

**10:15h - 10:45h: Problem 1 - Prioritisation of occurrences and allocation of means and resources to combat forest fires - FEPC-ANEPC**

- Speaker: Akli Benali (ISA)
- Overview of the first data science problem
- Challenges and complexities associated with this problem.
- Q&A session for clarification on challenges.

**10:45h - 11:15h: Problem 2 - Prediction of raspberries yield and fruit quality - Summer Berry Portugal**

- Speaker: João Alves (Summer Berry)
- Overview of the first data science problem
- Challenges and complexities associated with this problem.
- Q&A session for clarification on challenges.

**11:15h - 11:30h: Break and Networking**

**11:30h - 12:30h: Part 2 - Communications on Challenges and Opportunities for Green Data Science**

**11:30h - 12:15h: Communications on Challenges and Opportunities**

Three short presentations on challenges and opportunities in applying data science to agriculture, food, forestry and the environment.

- Moderator: Manuel Campagnolo (ISA)
- Presentation 1: Paulo Branco (ISA) - the experience on the MERLIN project, about the ecological restoration of freshwater-related ecosystems
- Presentation 2: João Rolim (ISA) - the experience on multidimensional data on agricultural water management
- Presentation 3: Miguel Costa (ISA) - the challenges on supporting decision making practices based on data in agriculture

**12:15h - 12:30h: Discussion and Closing Remarks**

- Moderator: Rui Figueira (ISA)
- Recap of key takeaways from the workshop.
- Information about future events or resources.

**12:30h - End of workshop**