EPSILON – European Platform for Data Science: Incubation, Learning, Operations and Network

Training Material for Teaching and Self-Learning

Conclusions & Summary
Module 6/6

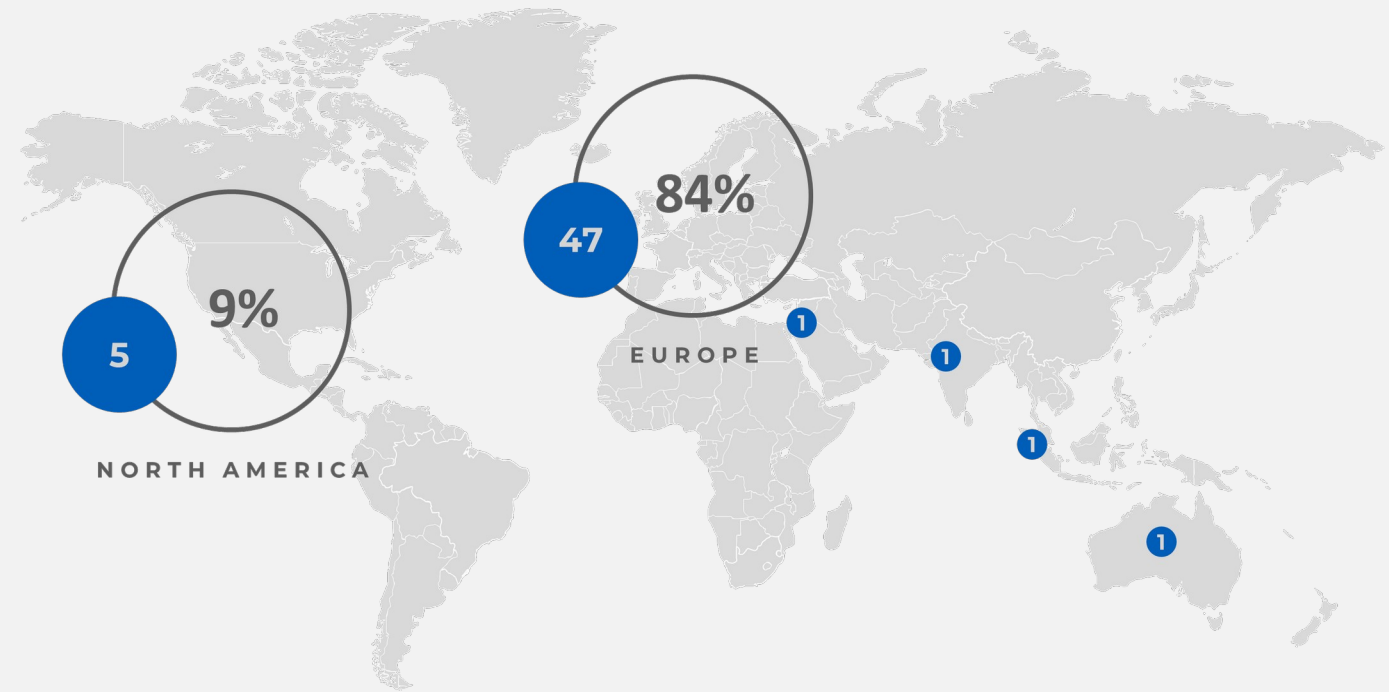# What We Aimed to Showcase:

This set of presentations aims to provide an overview of the Data for Good landscape while offering inspiration and practical approaches for initiating your own projects.

►Mapping the Landscape:
- ►Highlighting the ecosystem of DSSG and similar organizations

►Explaining Data Science:
- ►Providing an overview of its role and impact in social good initiatives

►Encouraging Autonomy:
- ►Inspiring individuals to independently initiate and engage in impactful projects

►Fostering Collaboration:
- ►Promoting networking opportunities with other initiatives for shared growth

►Showcasing Best Practices:
- ►Sharing project examples and frameworks to guide future efforts

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The "Data for Good" Landscape

Data for Good unites global organizations and initiatives like CorrelAid, DataKind, and DSSG to apply data science for positive societal impact.

84%

47

EUROPE

9%

5

NORTH AMERICA

1

1

1

1

►These organizations, with notable chapters in Berlin, Singapore, and beyond, connect data science talent with NPOs to tackle social challenges

The Current State of Data for Good Organizations

While there are many 'Data for Good' initiatives worldwide, the current landscape is fragmented, leading to **challenges** in coordination and accessibility.

►The Data for Good initiative "ecosystem" lacks clear structure, making it challenging to navigate

►The different organizations work on similar goals but often lack collaborations or shared best practices

►Many organizations are not well-known outside specific communities, leading to underutilized resources and expertise

Knowledge Transfer to New Regions

A **new initiative was founded** in Lithuania, managed by Vilnius University.

Volunteers are coming together to work on diverse projects, with the aim of promoting Data Science for Social Good.

First Project: **Dog Shelter Management**

► Challenge: Data was initially recorded manually (e.g., date, gender, size, phenotype of dogs).

► Solution:

  ► Data was digitized and transferred to Excel for analysis

  ► Patterns were identified, such as entry and exit dates for each dog

  ► Photos were analyzed for recognition, helping determine if the same dog had been sheltered previously

► Sub-Projects Completed:

  ► Data collection and analysis

  ► Google Ads

  ► Picture recognition for dog re-identification

  ► Ongoing machine learning applications

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Volunteer-Driven Knowledge Sharing

Since most participants are volunteers, sharing knowledge is essential to ensure collaboration and effective impact.

► The majority of data scientists contributing to "Data for Good" initiatives do so on a volunteer basis

► Platforms facilitating knowledge transfer play a crucial role in capturing and sharing experiences

► This exchange enables future volunteers and organizations to build on prior successes, fostering continuous improvement and global impact

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Our Goals for Different Target Groups

We had different goals for each group, aiming to inspire students, engage data enthusiasts, and inform NPOs/NGOs through the topics covered in these slides

For Students

► Inspire curiosity and showcase the possibilities of Data Science in solving real-world problems

For Data Enthusiasts

► Provide a platform to engage in meaningful volunteer work

► Offer tools and resources to apply their skills for social impact

For NPOs/NGOs

► Raise awareness of how data can drive impactful decisions

► Emphasize the importance of structured data collection, preparation, and storage for future applications

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Future Challenges and Trends

Future challenges in Data Science for Social Good include ensuring ethical AI, improving data maturity, fostering collaboration, and scaling sustainable solutions to address global issues.

► **Ethical AI and Fairness**
  - ► Ensuring AI used in social good projects is fair, transparent, and free from bias
  - ► Addressing privacy, security, and discrimination risks as AI expands

► **Data Maturity in Organizations**
  - ► Many NGOs **lack** data infrastructure and expertise

► **Collaboration Across Sectors**
  - ► Strengthening partnerships between governments, NGOs, and tech companies
  - ► Building sustainable collaborations to address complex social challenges

Looking Ahead

Looking ahead, AI and data science hold promise for addressing complex social issues, with technology and collaboration paving the way for sustainable solutions.

►The role of AI in Social Good

►Expanding AI applications to address diverse social challenges, from healthcare to environmental issues

►Ensuring AI is transparent and accountable to build public trust

►Focusing on Scalable and Sustainable Solutions

►Developing solutions that can be adapted across regions and scaled to reach broader audiences

►Prioritizing long-term, sustainable projects that continue to deliver impact over time

Call for Action – Join Us in Making a Difference

Click the following link to join EPSILON and use your data skills to make a real impact on society. Or use the following link to get an overview of EPSILON.

► You Can Make a Difference
  ► Data Science for Social Good relies on dedicated volunteers like you to drive impactful change
  ► Your skills can empower communities, tackle real-world problems, and create lasting solutions
► Become a Volunteer
  ► Join a growing community of data professionals and enthusiasts committed to positive social impact
  ► Together, we can address critical challenges and make a meaningful difference

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Sources

► EPSILON Homepage: https://epsilon.cs.ucy.ac.cy/

► EPSILON Calls for Volunteers: https://epsilon.cs.ucy.ac.cy/index.php/calls-for-volunteers/

► International Association of Business Analytics Certification (last updated 14.05.2024): Data Science for Social Good: Making an Impact with Analytics, https://iabac.org/blog/data-science-for-social-good-making-an-impact-with-analytics

► NOVA School of Business and Economics (2022), European Platform for Data Science: Incubation, Learning, Operations and Network – EPSILON Benchmark Report, Portugal

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