

# **Conceptual framework of Data Science for Good** Squad



Dalia Kriksciuniene, Virgilijus Sakalauskas, Giedrius Romeika Vilnius University

# Abstract

The idea of the research is based on the EU initiative "Data science for good" (DS4G), which aims to effectively use data collected by public organizations due to digital transformation of society. These data are related to health, education, legal environment and security, development of labour resources, energy, transport, sustainability, climate change problems, and other solutions.

The objective of the research is to propose the conceptual framework to create an innovative data science hub model (Data for Good squad), which would ensure the creation of effective workflows of operational processes, preparation of training materials, methodologies for identifying company problems and needs, management of risk and sustainability factors, and a building a relevant network of data science specialists. To implement this idea, volunteer teams of specialists in the field of data science and analytics are being assembled.

## **Project settings**

#### Current situation

Data Science for Social Goods initiatives exist all over Europe.

Teams are organized as **regional initiatives** all over Europe.

Every Platform/Team comprises qualified volunteers (academic and professional Expertein the field of **Data Science**).

Experts partner for the way forward to support regional Non-Profit organizations in the process of Digital Transformation.

Heterogenous standards across Countries and regions. Teams are formed on individual initiatives.

### Target state

Regional Teams have access to standardized and efficient work flows to ensure adequate organization and on-boarding of new volunteers.

Regional Teams have access to relevant Business Intelligence tools (i.e. Dash Boards) to ensure sufficient controlling and monitoring of projects and resources.

European countries without existing initiatives are identified. Regional teams get access to relevant information and are enabled to initiate regional squads.

#### Our Task

Conduct expert interviews with regional initiatives to explore and refine relevant work flows and best practices.

Conduct workshops to develop a Regional Platforms Blueprint.

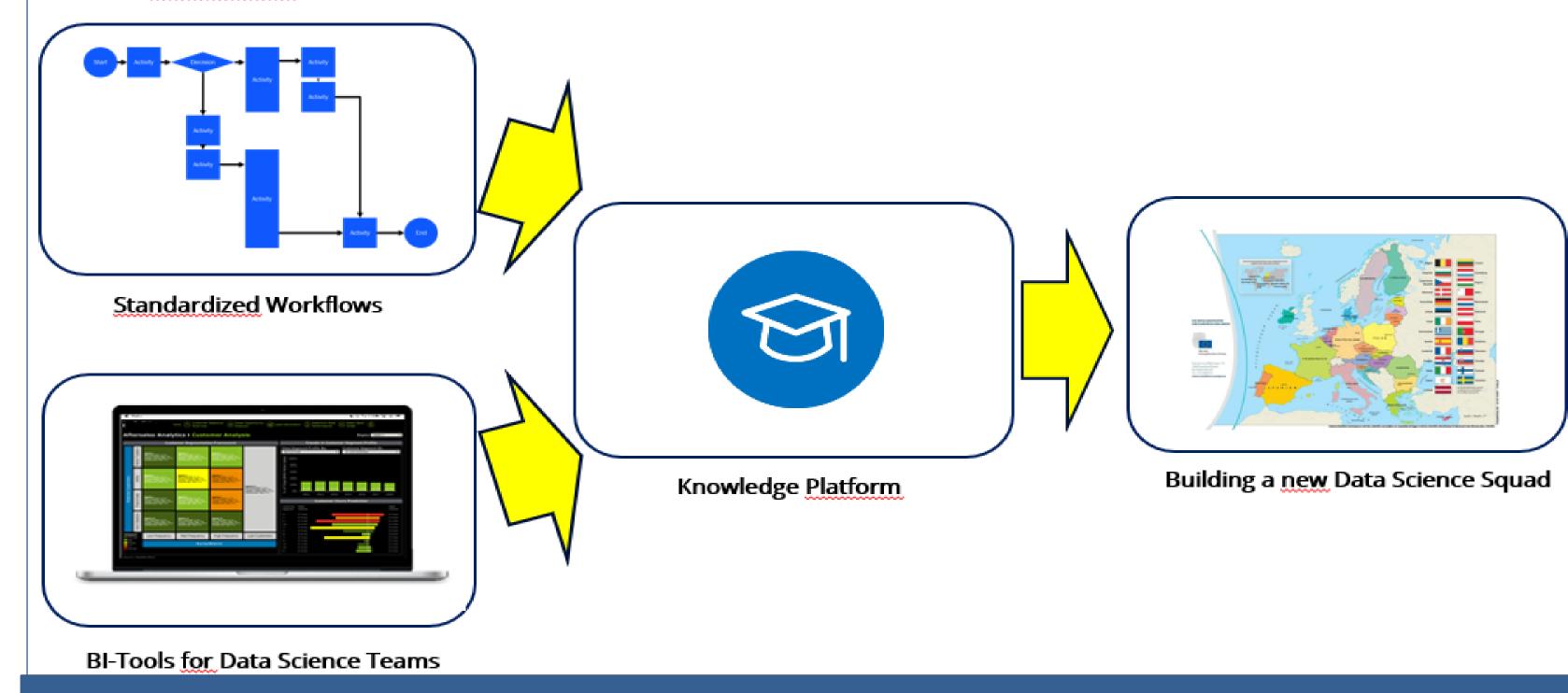
Develop standardized Business Intelligence Dashboards.

Build a knowledge management Platform.

Plan and initiate a regional squad in a lessdeveloped region.

# **Overall Vision**

#### Deliverables



# **DS4G Concept**

The DS4G concept tackles the problem of how to help public organizations not only to collect but also to extract useful information from data, allowing them to make decisions useful to the society. The use of data is complicated not only due to the abundance of collected data but also due to their

different sources, collection formats, insufficient data "cleanliness", and the lack of specialists in IT, data science and analytics.

The efforts to bring together specialist communities and solve the data analytics problems raised by the DS4G initiative are already being made. Leading companies in the field of technology, such as Facebook, Google, and Amazon are becoming more and more actively involved in solving these issues.

# Standardized Business Intelligence Solutions for DS4G Squad model

Following an agile approach, we explore the existing practices and requirements to clearly define user groups, BI needs, and additional requirements including data protection, compliance, and security.

Subsequently, we refine relevant workflows and continue to implement and run managed analytics projects.

