Smart Communities

Unleashing the Potential of Data for Smart Communities

Antje Kunze¹, Michael Marz², Edyta Wyka³
¹,² Esri Germany ³ Esri Poland
¹,² {a.kunze|m.marz}@esri.de ³ ewyka@esri.pl

Are you excited about data, mapping and analytics and want to learn new skills? Then you'll love our hands-on workshop on how to collect and blend open and premium data with the cities' everyday planning and management tasks, analyze urban environments, and deliver the results in stunning 2D and 3D web mapping apps.

Keywords: smart city, GIS, data visualisation, data driven design

WORKSHOP INTRODUCTION

Smart communities are about connecting people to technology to achieve better daily outcomes. Modern communities face constant challenges. Whether it’s congested roadways, homelessness, lack of jobs, underperforming schools, crime, or otherwise, the opportunity for improvement is everywhere. Smart communities find the results they seek more often through civic engagement, data-driven decision-making, and collaboration. Geographic information system (GIS) technology supports these efforts by uniting data sources, analyzing information at scale, and providing intelligence with context to help anticipate outcomes.

In this hands-on workshop we will evaluate new techniques to gather data from Open and Premium Data sources, bring them in context with cities’ everyday planning and management tasks. You will learn how to analyze urban environments and how to visualize the results effectively in stunning 2D and 3D web mapping apps.

SKILLS ACQUIRED BY PARTICIPANTS

It is a plus when participants are familiar with basic principles of mapping. Excitement about data, mapping, analytics and interested to learn new skills.

EXPECTED OUTCOMES

The participants will create their own web maps enriched with open and premium data. Based on this outcome, web applications will be configured to bring the analytics and civic engagement to the map.

Figure 1

Interactive 3D web map showing the potential of land value.
Figure 2
Shadow impact analysis: Planners can assess the potential shadow impact of the proposed development on the surrounding community.

Figure 3
With visibility assessment planners can assess the visibility from or visibility of a proposed development within the community.

WORKSHOP CHAIRS
Antje Kunze is a Solution Manager for BIM and Smart Cities at Esri Germany. She is focusing on what is needed to build smart, livable, and resilient communities and how innovative technology supports collaborative planning and decision making across scales and disciplines. Previously she was a co-founder and CEO of the ETH-Spin-off CloudCities, an online platform for publishing interactive 3D city models, and a researcher at the Chair of Information Architecture at ETH Zurich.

Michael Marz is a sales engineer at Esri Germany. Previously, he was a scientific staff member at the University of Halle-Wittenberg and conducted research in the thematic field of efficient crop production with focus on fertilization and self-learning algorithms.

Edyta Wyka is a Manager of Education Department at Esri Polska, graduate of Warsaw University of Technology (Spatial Planning). She cooperates with academic institutions supporting educational and research projects with GIS. She leads ArcGIS workshops for students, academic teachers and promotes WebGIS in secondary schools.

REFERENCES
[1] https://coolmaps.esri.com