Challenges of Quality Assurance for Statistics Based on Big Data

Plenary session 2, Keynote speech
2 June 2016

Genovefa Ružić, Director-General
Statistical Office of the Republic of Slovenia
geni.ruzic@gov.si

Genovefa Ružić, Director-General
Statistical Office of the Republic of Slovenia
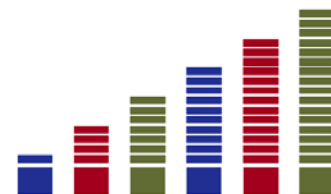geni.ruzic@gov.si

Opportunities and challenges

Big data offer opportunities:

- for improving timeliness, reliability and relevance
- for lowering response burden and costs

… and challenges

- access to data
- privacy and ethical issues
- methodological questions
- skills and competencies
- adaptation of quality framework
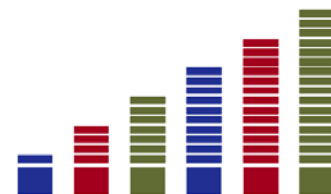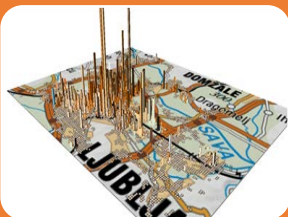- etc.

Quality measures

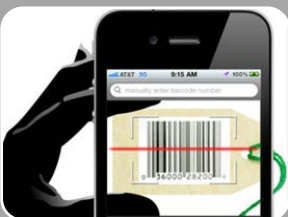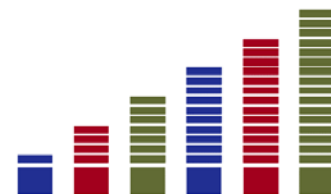| Statistics based on	
traditional data sources	👍
administrative data sources	👍
big data	🚧

Big data pilots at SURS

mobile phone data
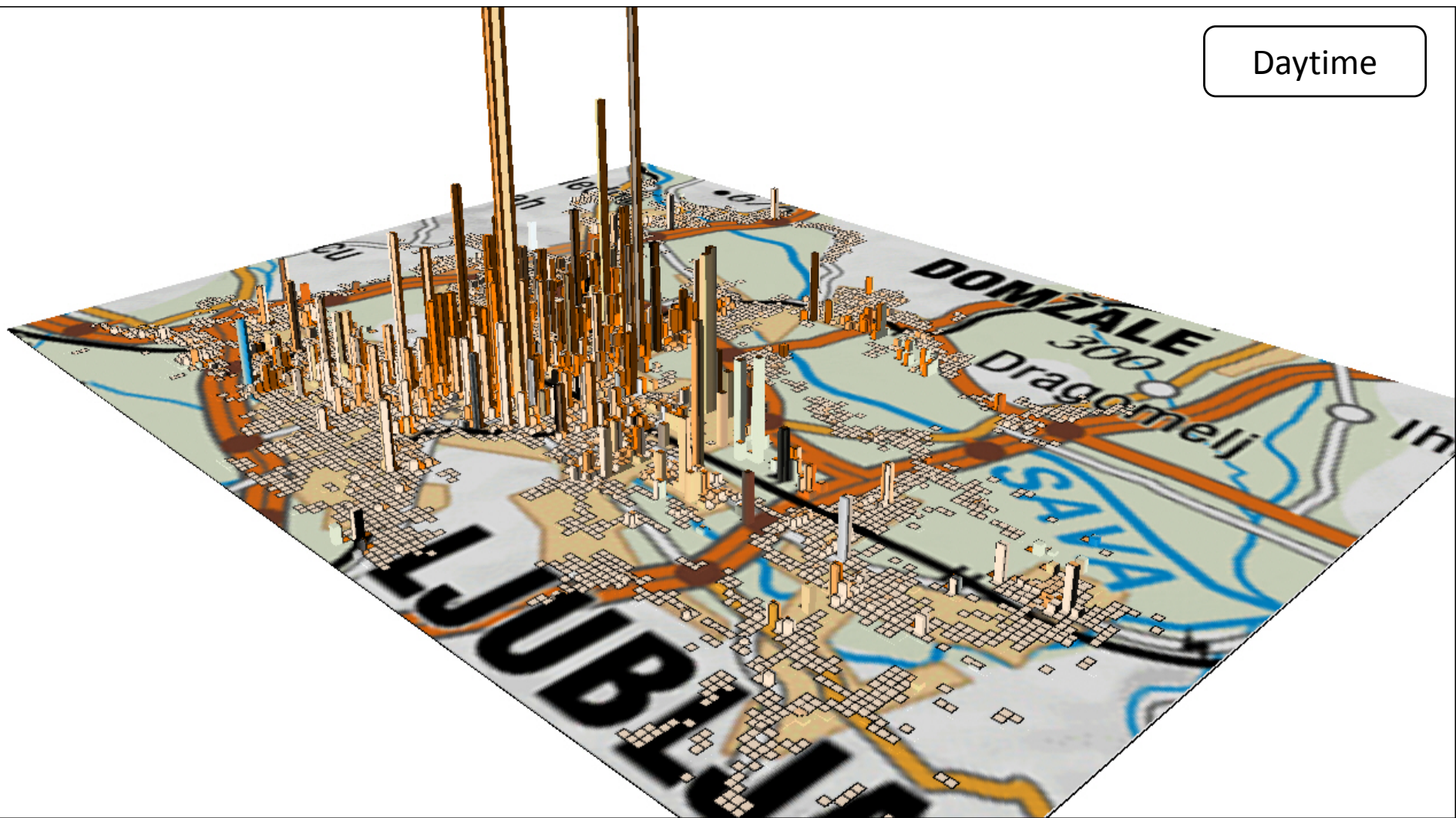
scanned prices and
web scraped prices

web scraped
job vacancies

Mobile phone pilot

Densitiy of people in Ljubljana

Daytime

Mobile phone pilot

Densitiy of people in Ljubljana
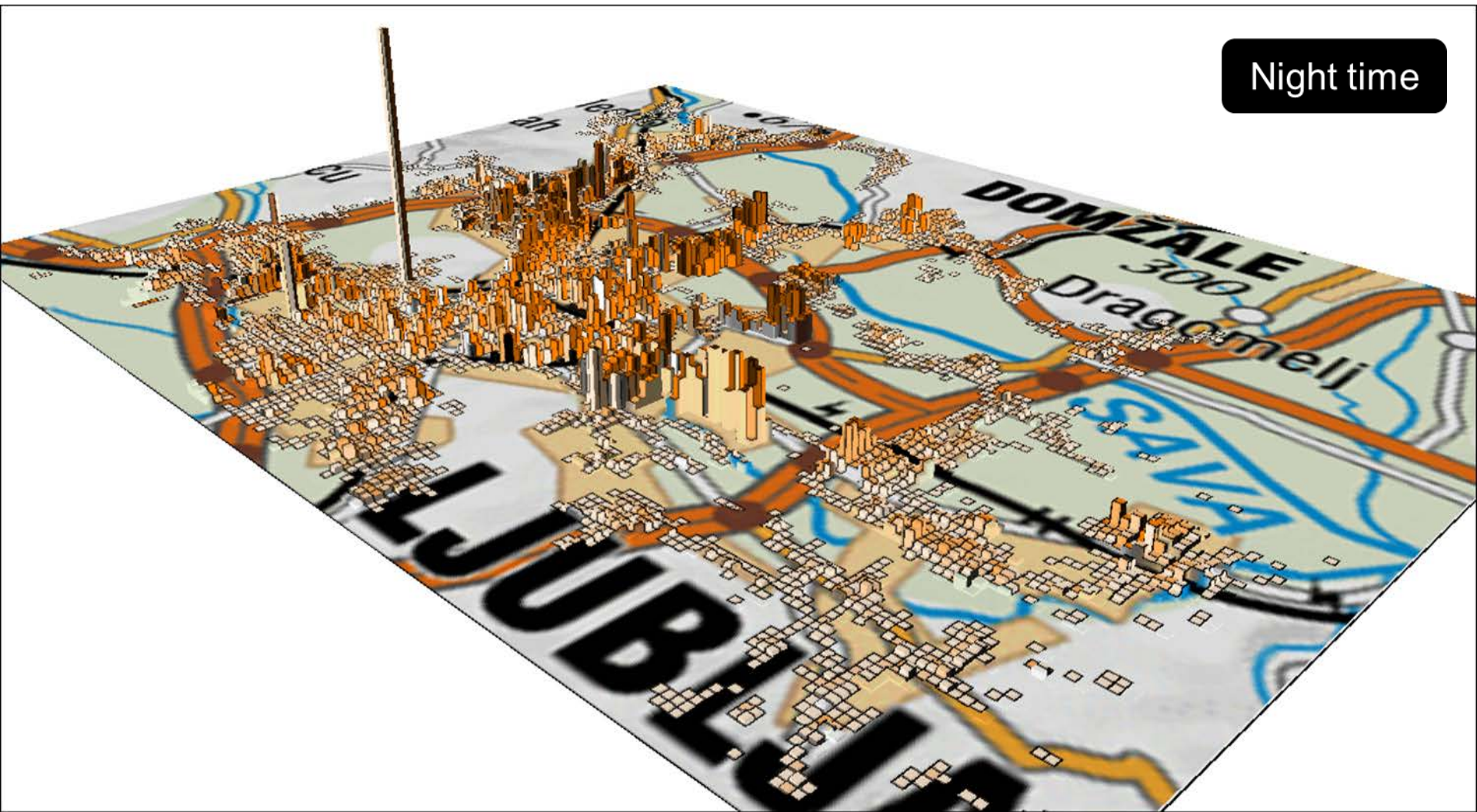
Institutional environment

Crucial issue: access to big data

- who are the owners?
- how to approach them?
- do we have mandate?
- only legal considerations?
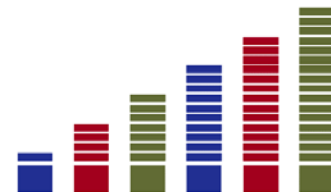- authoritarian or partnership approach?

Processes

What do we need?

- mental shift

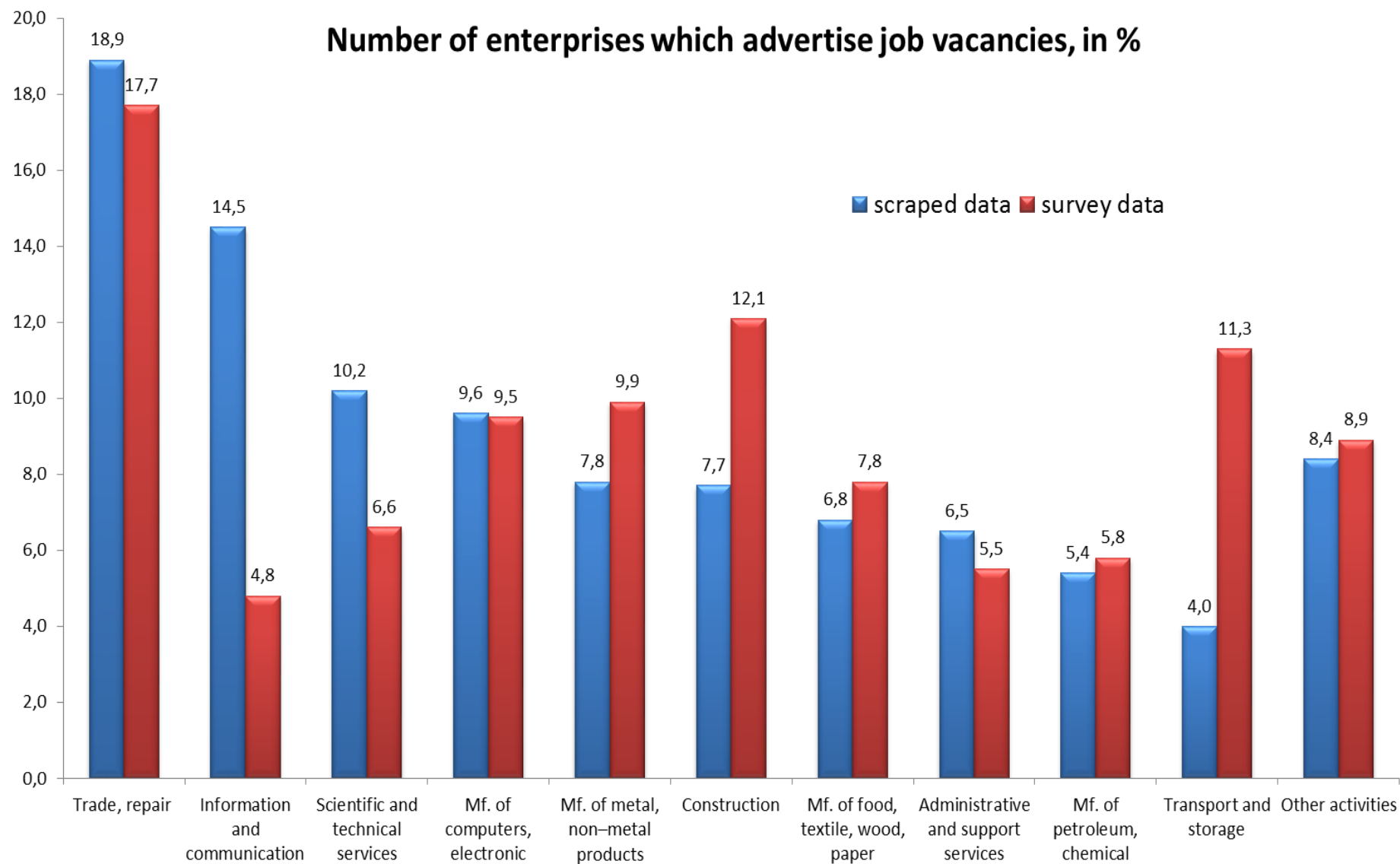- new knowledge and competencies

How to get to it?

Frank and Ernest

Copyright (c) 1998 by Thaves. Distributed from www.thecomics.com.

Output – job vacancies pilot

Number of enterprises which advertise job vacancies, in %

scraped data ■ survey data

Category	scraped data	survey data
Trade, repair	18,9	17,7
Information and communication	14,5	4,8
Scientific and technical services	10,2	6,6
Mf. of computers, electronic	9,6	9,5
Mf. of metal, non–metal products	7,8	9,9
Construction	7,7	12,1
Mf. of food, textile, wood, paper	6,8	7,8
Administrative and support services	6,5	5,5
Mf. of petroleum, chemical	5,4	5,8
Transport and storage	4,0	11,3
Other activities	8,4	8,9

Big data for internal purposes

e.g. for measuring the usage of official statistics
http://newsfeed.ijs.si/

Thank you!

100 **THINGS** **TO** **DO** **THIS** **SUMMER**

xxxxxxxxxxx   xxxxxxxxxxx   xxxxxxxxxxx   xxxxxxxxxxx
xxxxxxxxxxx   xxxxxxxxxxx   xxxxxxxxxxx   xxxxxxxxxxx
xxxxxxxxxxx   xxxxxxxxxxx   xxxxxxxxxxx   xxxxxxxxxxx
xxxxxxxxxxx   xxxxxxxxxxx   xxxxxxxxxxx   xxxxxxxxxxx
...   .
xxxxxxxxxxx   xxxxxxxxxxx   xxxxxxxxxxx   xxxxxxxxxxx
xxxxxxxxxxx   xxxxxxxxxxx   xxxxxxxxxxx   xxxxxxxxxxx
xxxxxxxxxxx   xxxxxxxxxxx   xxxxxxxxxxx   xxxxxxxxxxx
xxxxxxxxxxx   xxxxxxxxxxx   xxxxxxxxxxx   xxxxxxxxxxx