REPUBLIC OF SLOVENIA
MINISTRY OF PUBLIC ADMINISTRATION

Big Data – Big Challenge for Public Administration – Experiences of Pilot Project in Ministry of Public Administration of Republic Slovenia

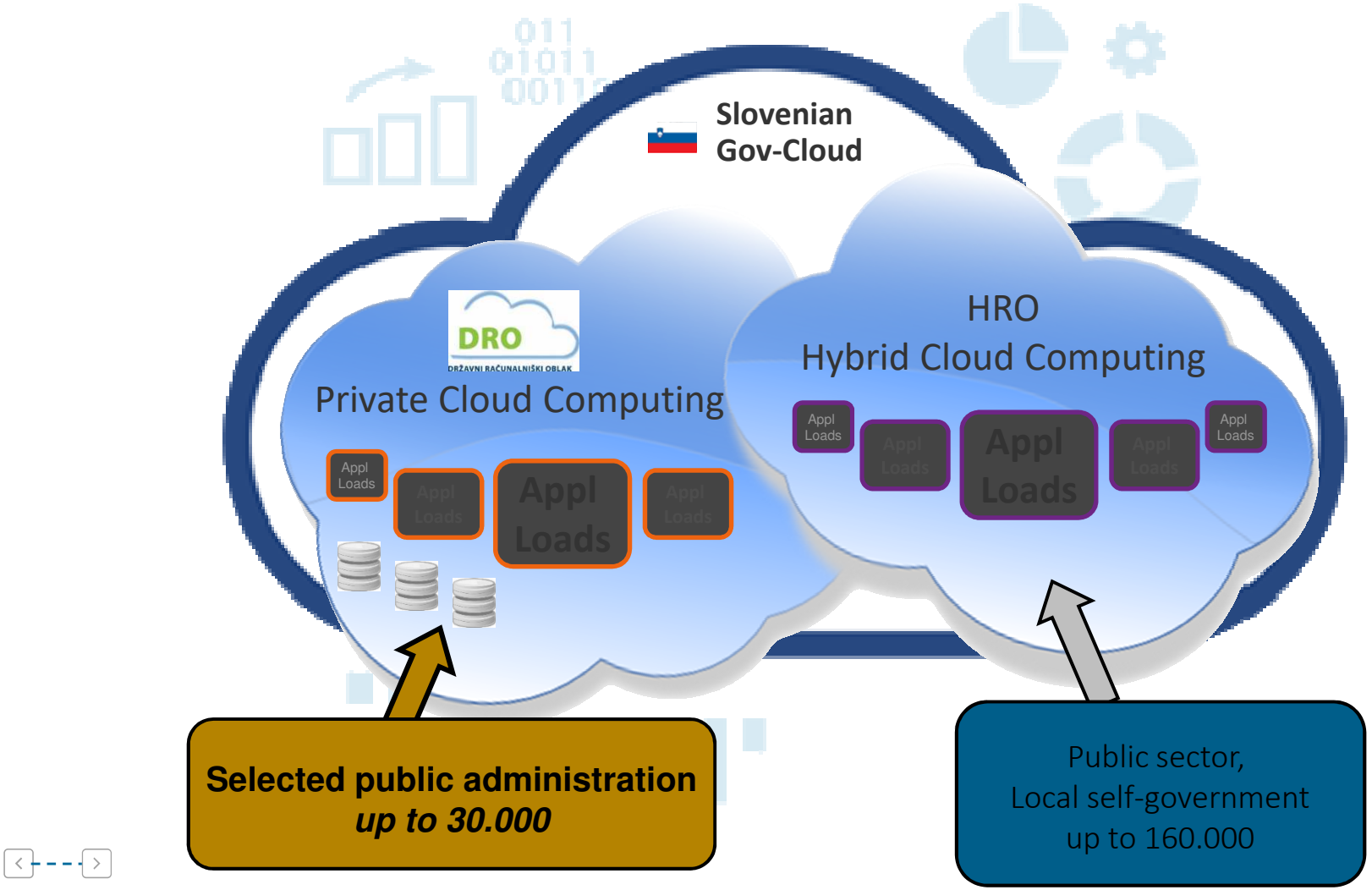
Dr. Karmen Kern Pipan

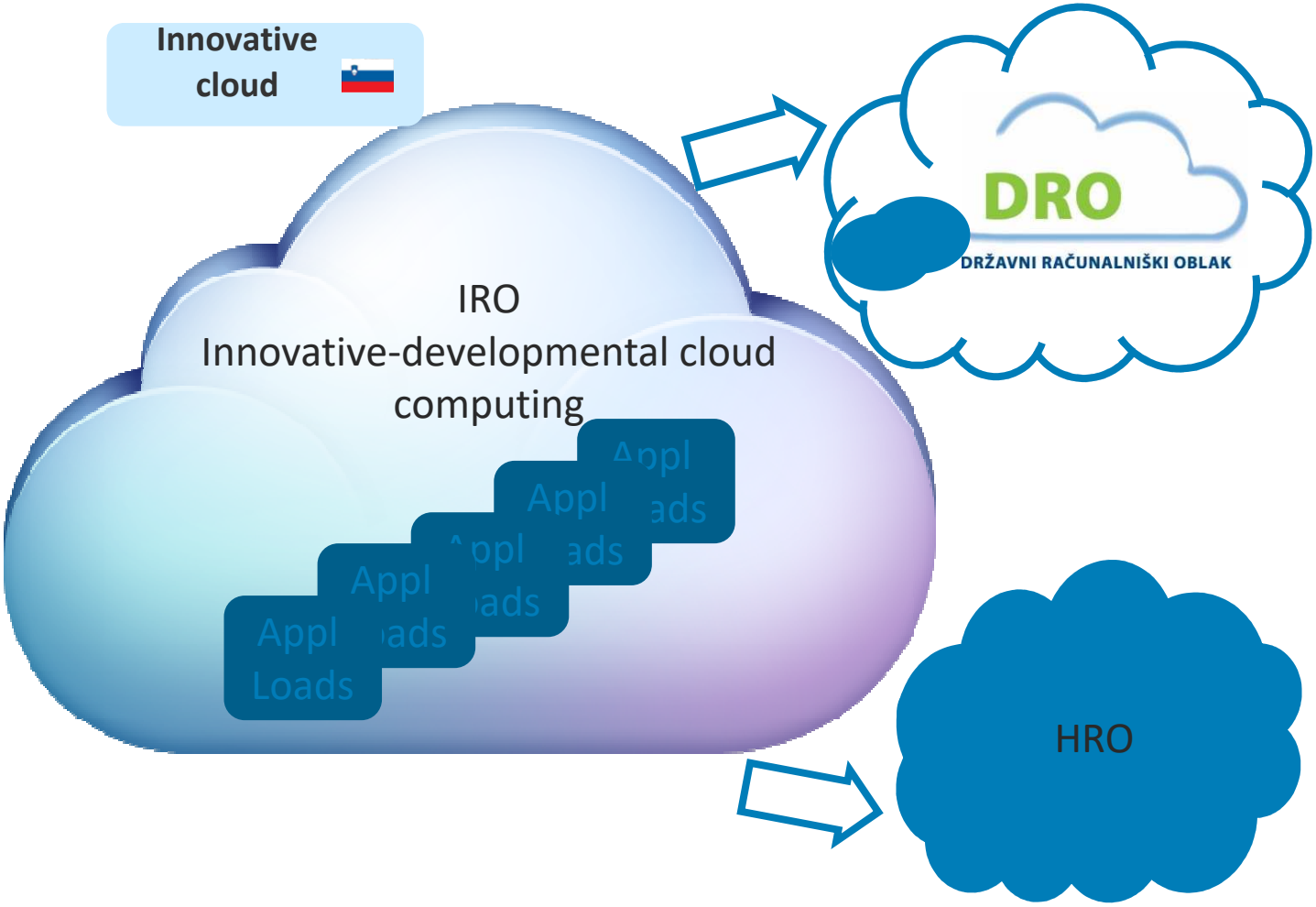
Ministry of Public Administration of Republic Slovenia

Paris, 4th International Conference on Big Data Analysis and Data Mining

September 07-08, 2017 Paris, France

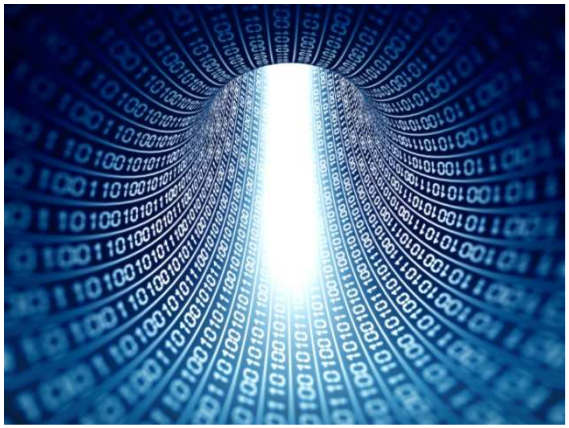



Slovenian
Gov-Cloud
DRO
DRŽAVNI RAČUNALNIŠKI OBLAK
Private Cloud Computing
Appl Loads
Appl Loads
Appl Loads
Appl Loads
HRO
Hybrid Cloud Computing
Appl Loads
Appl Loads
Appl Loads
Appl Loads
Appl Loads
Selected public administration
up to 30.000
Public sector,
Local self-government
up to 160.000


Innovative cloud
DRO
DRŽAVNI RAČUNALNIŠKI OBLAK
IRO
Innovative-developmental cloud computing
Appl
Loads
HRO

Data Analytics and Big Data

- **Data analytics** – new way of management by data **driven decission making** on all levels.
- **Today** organisations use cca. **10%** of their available data -> **by 2020** -> using data analytics tools possible to utilize **75%.**
- Early users of big data analytics – large companies have in average **5 % higher productivity and for 6% higher profitability than their competitors**.
- **General Electric** - analysis for airline industry showed cca. **22 billions $ annual savings** after using data analytics (Pirelli, 2016).
- McKinsey stated potential savings up to **20% in PA, for Europe amount up to do 300 billions EUR** (BRZ, 2015).

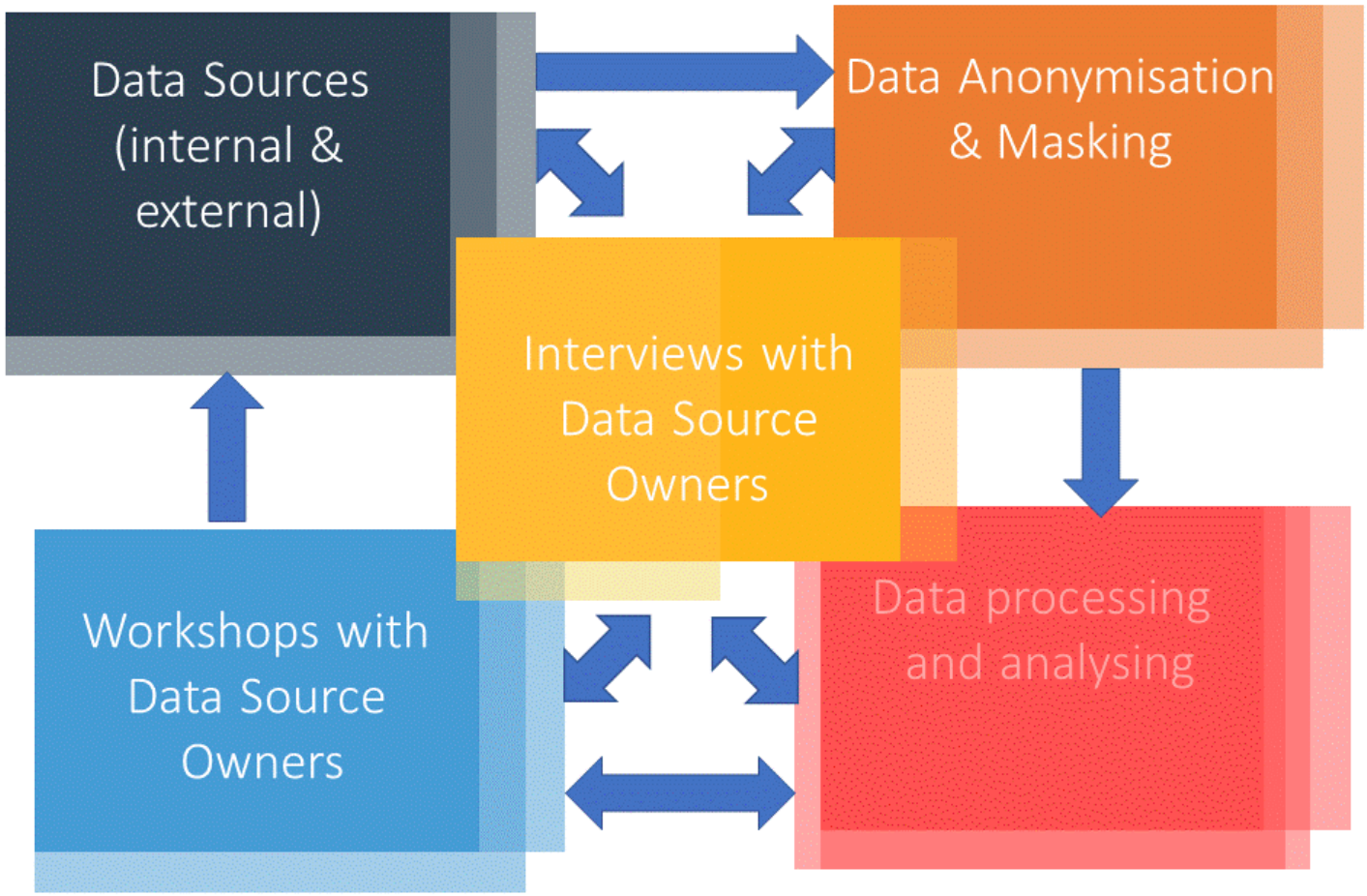


Big data pilot project in Ministry of Public Administration

- **Purpose -** to learn what Big Data could enable to improve efficiency in the field of HR and public procurement.
- Pilot with partner company **EMC Dell** – 5 experts + 23 MPA team members.
- **Duration** April 2016 to February 2017. MPA data, from January 2015 to August 2016 .
- **Data sources**: data on employee's time management (Codeks), ISPAP – salaries data, HR data and finance data (MFERAC), data on public procurement + external – postal codes and weather.
- **Media** – personal data. **Informational Comisssioner** Discussion and Directions.
- Data **substitution** and **anonymisation** (personal data).



Process Big Data Analysis for HR efficiency improvement in Ministry of Public Administration of Republic Slovenia



Experiences, Lessons Learned and Challenges

- Personal data **security** and **anonymisation**.
- **Interwievs experts** with employees.
- Combination of **internal & external** sources.
- **One team -> one goal** (HR, Finance, Legal services, IT, DPS).
- **Statistics, interpretation of mid-data** and connection to business analytics.
- Further collaboration with University of Ljubljana, Faculty of Computer Science and Informatics and Institute Jozef Stefan with MPA Administration Academy.
- **Model Big Data** platform

