



Let's do some Business Intelligence Stuff

Armel Lefebvre

Business Intelligence Workshop Coordinator

25/04/2019

The Workshop

- Team work
- Few contact hours
- Two presentation sessions in plenary
- Weekly deliverables

The Project



Research and Innovation

- In Europe
- EU 28 Countries
- And elsewhere
- Switzerland
- United States
- China
- ...
- About
- Education
- Research Quality
- Research and Innovation

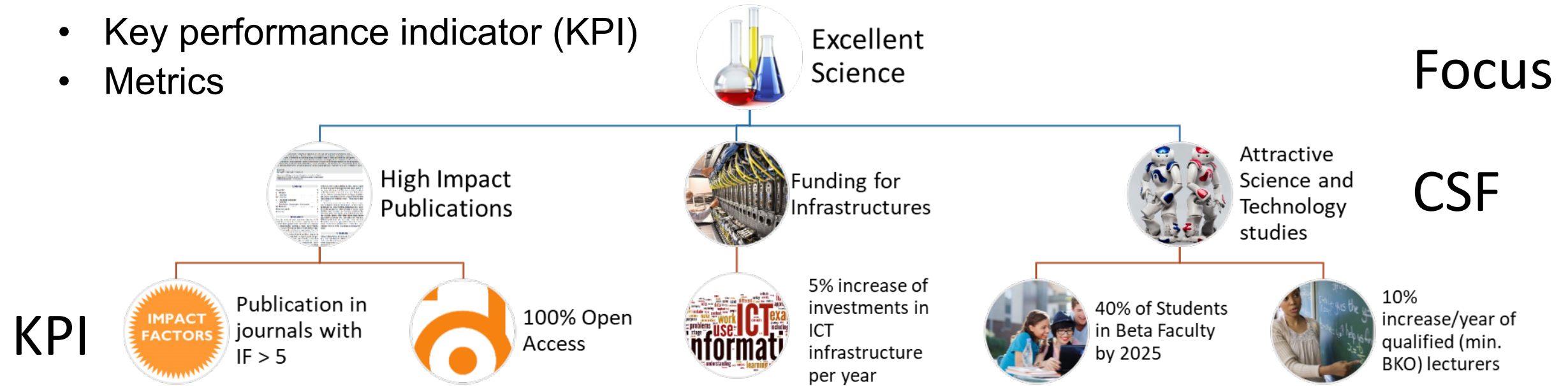
Report

- One draft version
 - Peer reviewed
 - One Final Version
-
- Contains
 - Strategy and Literature Review
 - ETL
 - Dashboard
 - Future Work

Section	Pg*	Description	Bonus	Weight
Cover page	1	Cover page with team number	No	Mandatory
Team	1-2	Present team, a short biography, and expertise	No	5
Executive Summary	1	Main findings, action points	No	10
Introduction	1-2	(Worldwide) Context, relevance	No	10
Strategy and Key Performance Indicator	3-5	Document the strategy, vision, and needs of the countries and explain how you operationalized them into KPIs	No	20
Data sources	2-3	Present the data sources used.	No	10
ETL, Dashboard and Data Analytics	10-15	Document the ETL process and present the (main) features of the Dashboard. In this section, you should also describe the multidimensional model. Describe what kind of descriptive and predictive statistical/data mining methods you implemented.	No	30
Limitations and Future Work	2-3	Any project has some limitations, think about the data sources, an incomplete strategy, too much focus, etc. Also, explain what you would do if you had more time and resources to extend the dashboard. Which new kind of findings would you expect?	No	10
Conclusion	1	Relate KPIs to the main findings	No	5
References	1-2	The references you used for the strategy and KPIs	Yes, max. 10	-

Strategy

- Literature review, online reports
- Critical success factor
- Key performance indicator (KPI)
- Metrics



For demonstration purposes only, some measures shown here might not be relevant

Grade Project

Final grade = (4 * (0.025 * Tests)) + (0.4 * Exam) + (0.5 * Project) + (OptionalParticipationBonus)

Project = 0.5*Dashboard + 0.4*Final Report + 0.1*Final Presentation

Teams

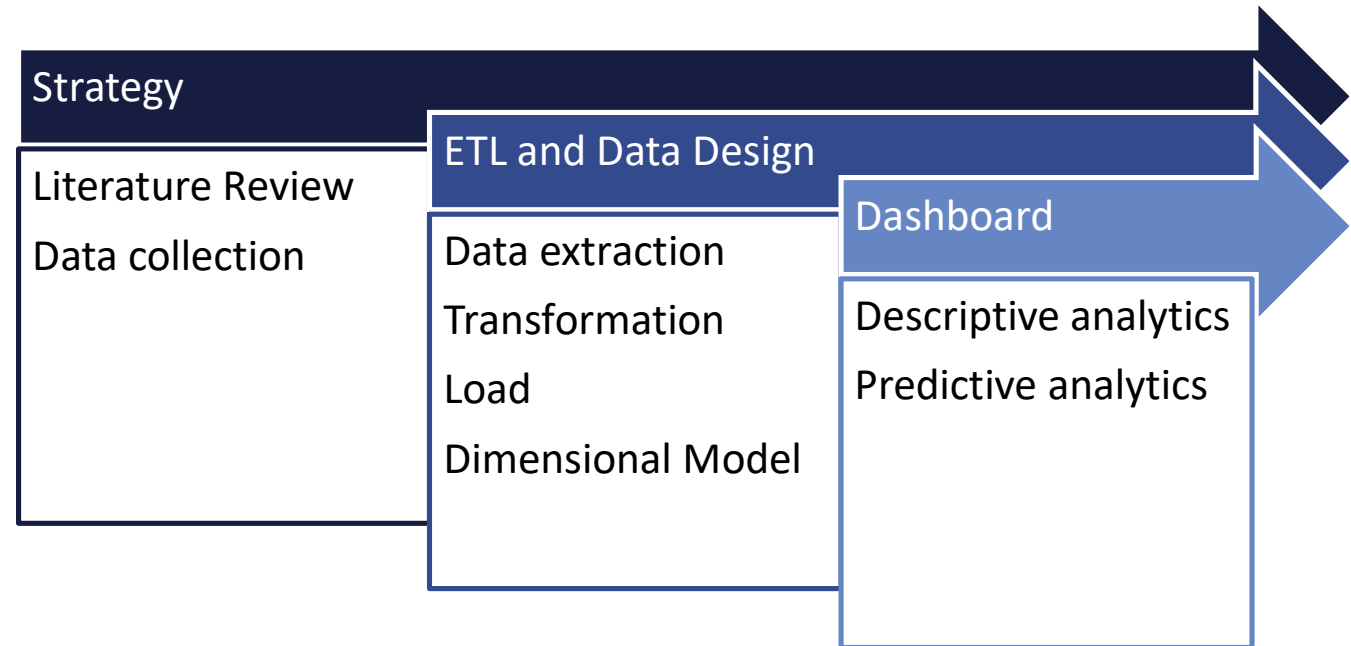
- Max. four people per team
- Document Team Contribution
- Register teams on blackboard
- Before Deadline: 28 -04-19 at 23:59

Dashboards

An essential part of the project is the design and implementation of a dashboard

Method

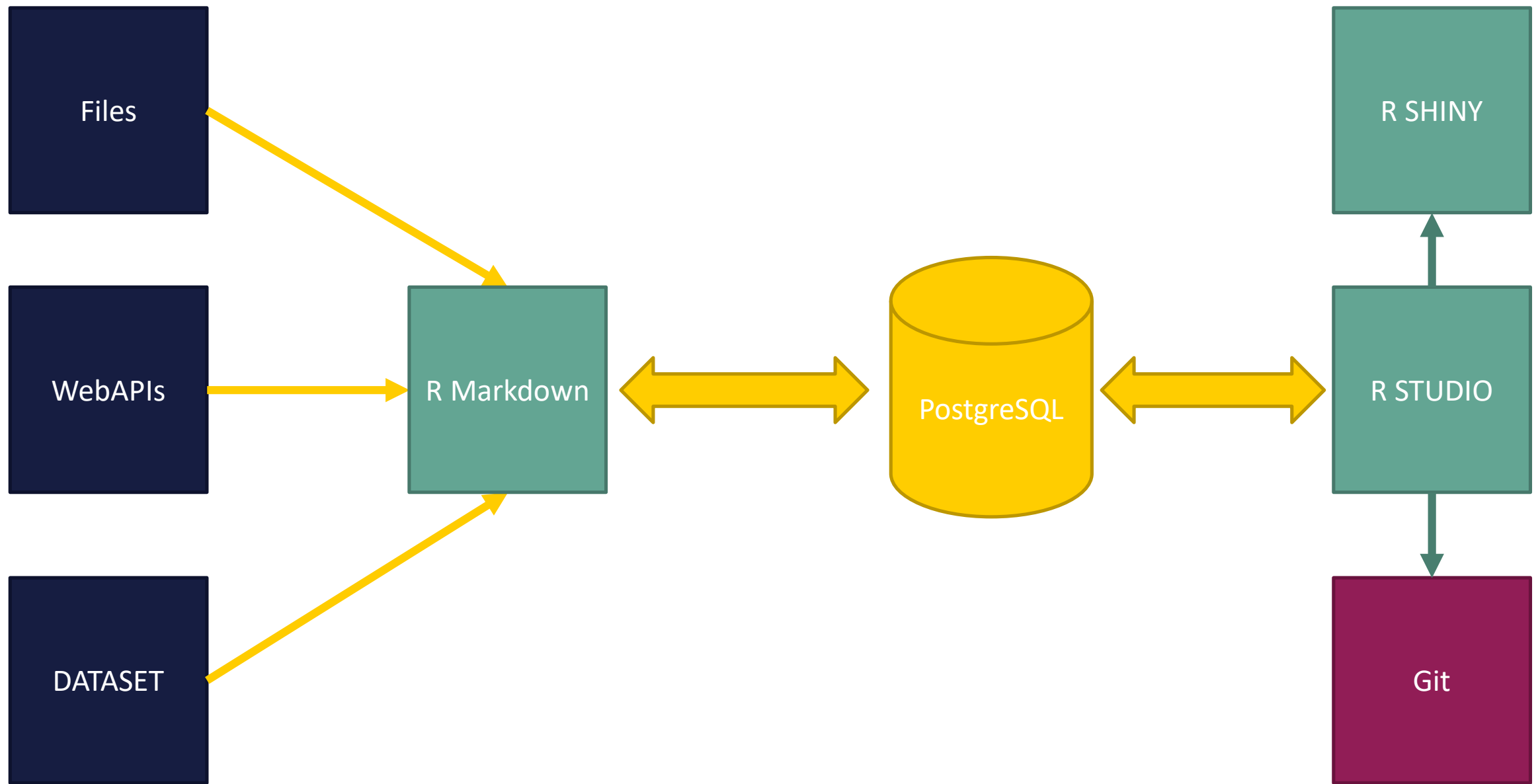
We follow Sherman (2015)
Part II. Business and Technical Needs
Part IV. Data Design
Part V. Data Integration Design
Part VI. Business Intelligence Design



Technology

- R
- PostgreSQL
- Git

- And others!



Technology used in this project: R, PostgreSQL, Git

Make Git Work

- Install Git client : <https://git-scm.com/downloads>
- Log in on <https://git.science.uu.nl/>
- Add your public key <https://git.science.uu.nl/profile/keys>
- If you do not have any suitable public key, follow the instructions to generate one
- <https://git.science.uu.nl/help/ssh/README#generating-a-new-ssh-key-pair> Follow instructions for RSA keys
- Clone the project on your laptop
- <https://git.science.uu.nl/bi2019/demo>

Next

- Install PostgreSQL version 10.7 +PgAdmin 4 + PsqlODBCdrivers
 - Install from here:
<https://www.enterprisedb.com/downloads/postgres-postgresql-downloads> , please install stackbuilder (when prompted during the install). Otherwise, you need to install ODBC drivers separately.
- R >= 3.4.3 or 3.5+ branch with at least shiny, tidyverse and RPostgrespackages
- RStudio > 1.1.4X

Goal

Run the demo dashboard on your laptop

Next week we will dive into the ETL part.

Help

- There are guidelines (see Blackboard)
- There are tutorials
- There are meeting sessions
- And Slack! <https://infombin2019.slack.com/>

Resources

- Dashboard
- <http://shiny.rstudio.com/tutorial/>
- Work with Data and Databases in R
- <https://r4ds.had.co.nz/>

Deadlines

- Team Registration **Deadline: 28-04-19 at 23:59**
- Strategy **Deadline: 05-05-2019 at 23:59**



The information in this presentation has been compiled with the utmost care,
but no rights can be derived from its contents.