GRIL Research Derby 2016

1st edition

GRIL | DERBY DE RECHERCHE

DÉFI AQUA HACKING 2016

Made possible through the collaboration of

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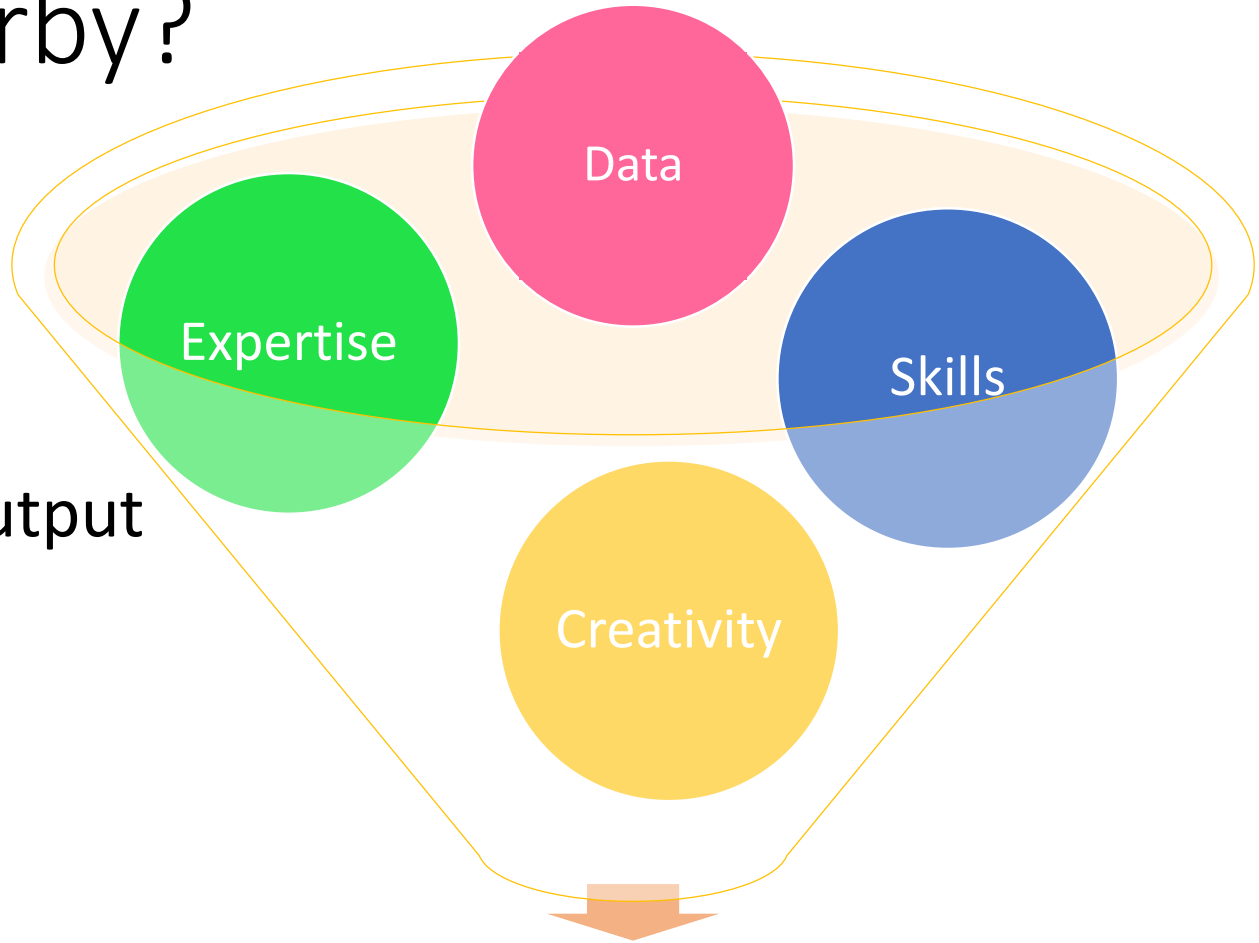
What is a research derby?

Objectives and opportunities

- Generate creative ideas
- Generate a concrete scientific output
- Work outside your primary field
- Share knowledge
- Networking
- Collaboration



Scientific output

Ideas
Publications
Tools (ex: model, framework)
Novel information…

A perfect match!

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DÉFI AQUA HACKING 2016

- Scientific expertise on aquatic environments
- Skills for data analysis and interpretation
- Motivated and creative members

- Mission: improve water management
- Data (open source)
- Platform for interdisciplinary exchange and networking
- Financial and technical support

The issues

Water quality

- Recreational activities
- Environmental contaminants
- Sewage overflow
- Eutrophication

Biodiversity

- Fish populations
- Invasive species

Hydrology

- Shoreline erosion
- Water level
- Ice cover
- Catchment land cover

For more details: https://github.com/nicolasfstgelais/GRILderby_2016

The data

Water quality

- Water quality in Montreal streams and shorelines (QUALO and RUISSO)
- National inventory of pollutant spills (NPRI)
- Weather data

Biodiversity

- Fish presence/absence
- Crawfish abundance
- Bird inventories

Hydrology

- Areal pictures of Montreal
- Shapefile of Montreal streams
- Shapefile of Montreal wetlands

For more details: https://github.com/nicolasfstgelais/GRILderby_2016

The plan

	Day 1 (May 25th)	Day 2 (May 26th)
8:00-9:00	Breakfast	Breakfast
AM	▪ Overview of the Derby / environmental issues / available data ▪ Break out session to develop research questions	▪ Recap of Day 1 and planning for Day 2 ▪ Group break out session and data analysis
Noon-1:00	Lunch	Lunch
PM	▪ Collective review of questions ▪ Formation of working groups ▪ Definition of group hypotheses ▪ Exploration of data and initial brainstorming on statistical analysis ▪ Group presentation of project developments	▪ Review of group objectives and desired outputs ▪ Wrap-up of group analysis ▪ Speed talks ▪ Closing Remarks
6:00-8:00	Diner Discussion and feedback on Day 1	Diner Discussion and feedback on Derby
8:00-	Beer outing	Beer outing

The tools

1 - Data repository:
GitHub - https://github.com/nicolasfstgelais/GRILderby_2016

2- Scripts/figures/files sharing
Slack - https://slack.com/

The output

Ready to use output on a sharing platform

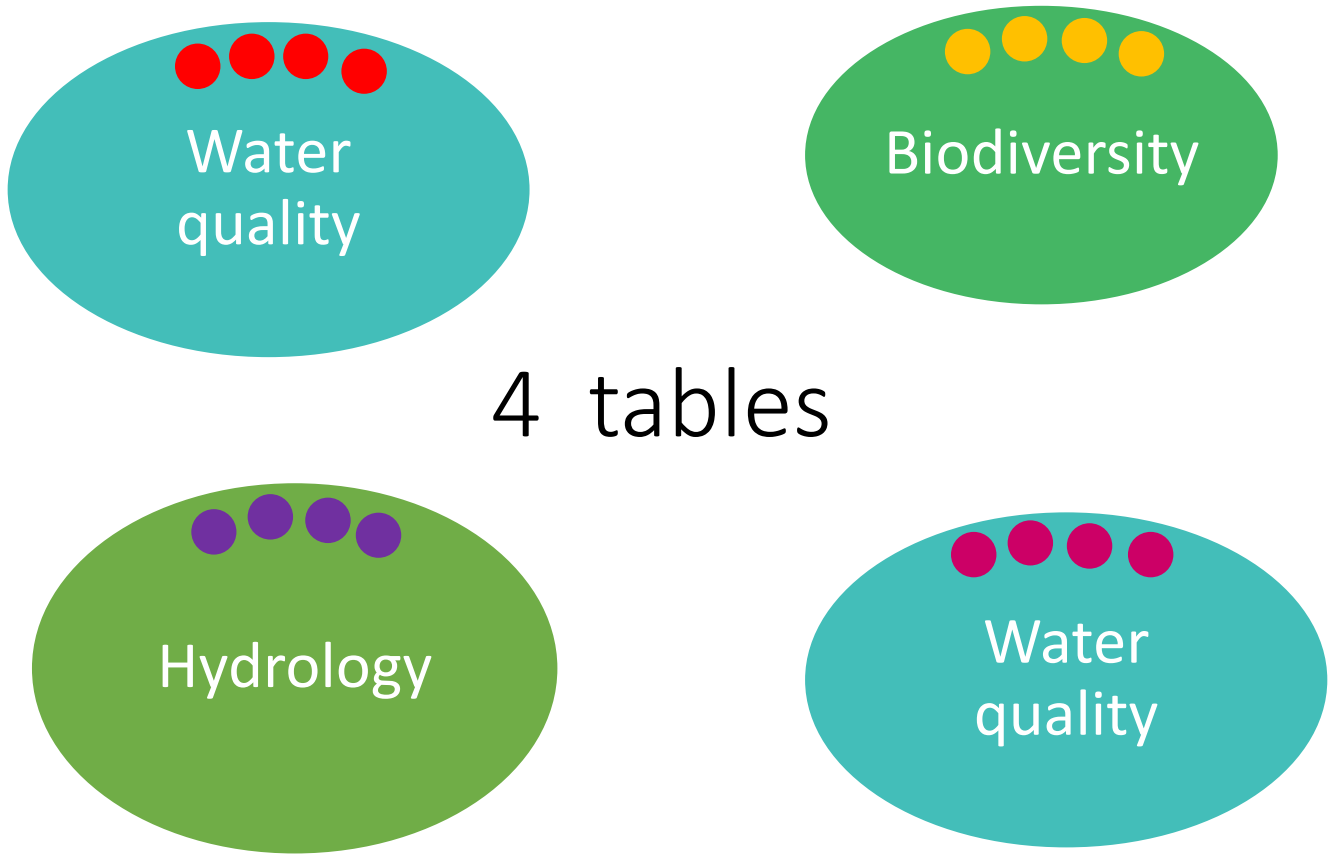
1) Oral flash presentation (5-10 min)

2) Brief summary of the work

3) Clear data files and scripts

This morning

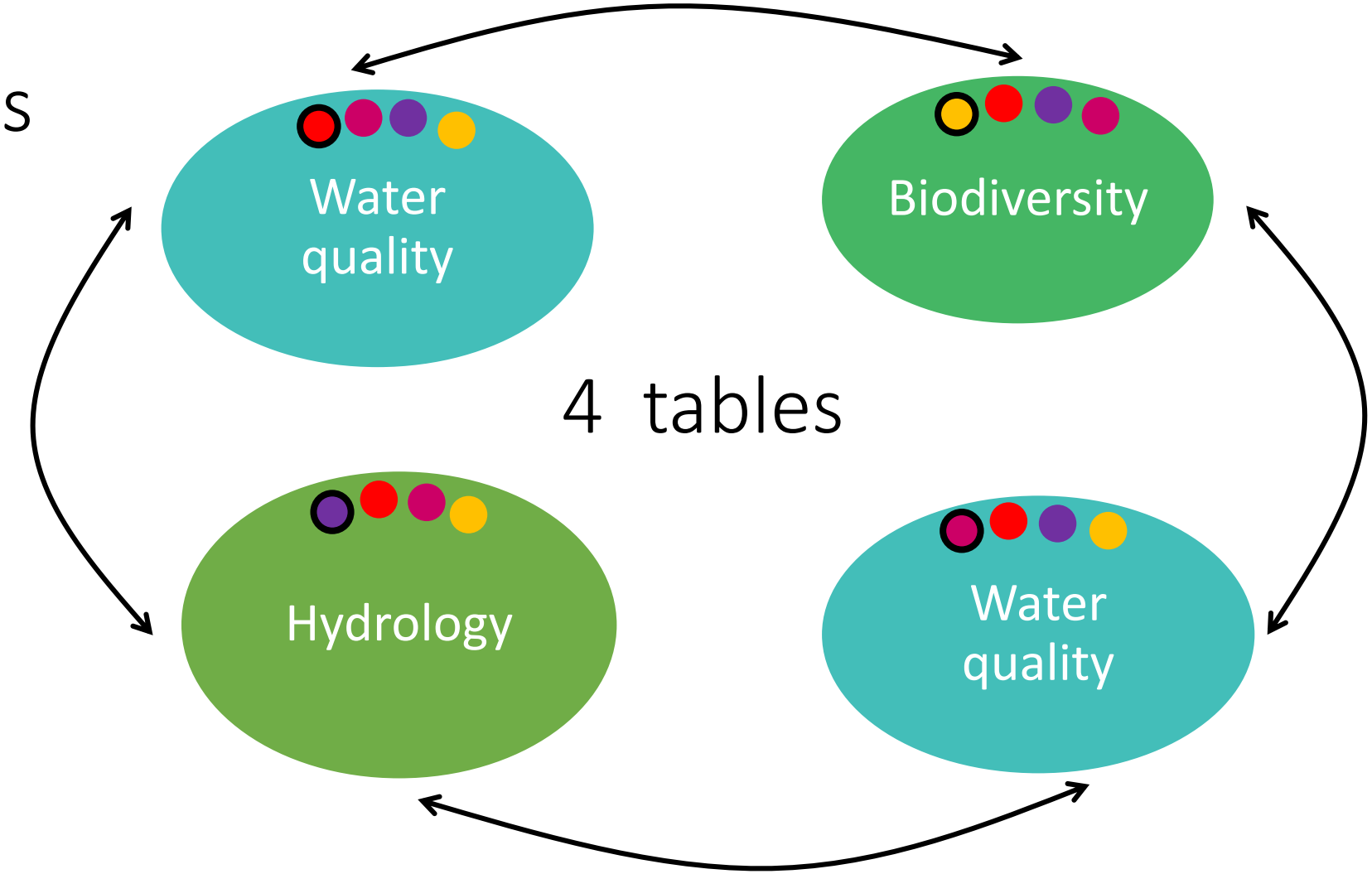
Goal: develop creative research questions



This morning

Goal: develop creative research questions

15 minutes



#GRILderby

@GRIL_Limnologie

Questions?

Please share your feedback and suggestions at any time!

The output

Ready to use output on a sharing platform

- Oral flash presentation
- Brief summary of the work
- Clear data files
- Contains all the pertinent information
- Standard format
- Brief summary of the work
- Contact information