



# Open Science and Research Data Management: Good habits for good science

**MINERVA Virtual Study Visit**  
**June 16, 2021**

**ULiège Research Office**

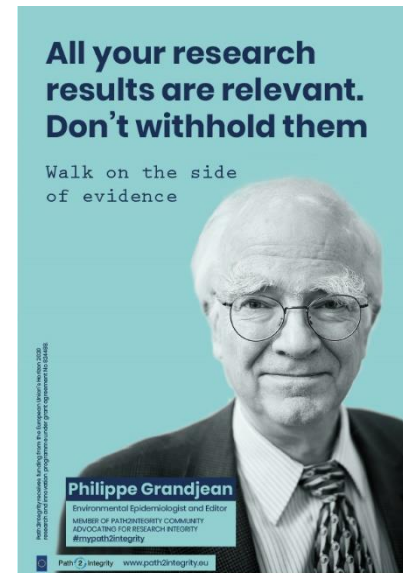
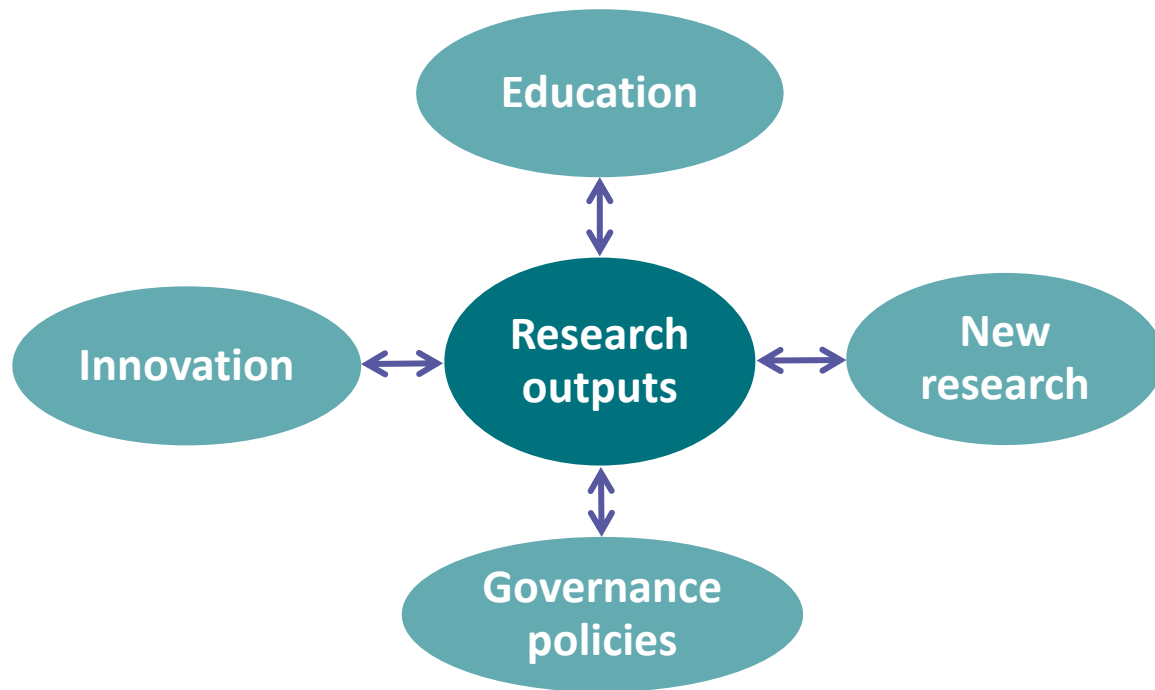
Place du XX Août, 7 (Bât. A1), B-4000 Liège



# Open science, ethics and reproducibility

Emerging **European** dynamics towards more **reproducibility** in research, in a **data-driven world**

e.g. [EOSC](#), [ORE](#), [FAIRsFAIR](#), [Horizon Europe](#), ...



[Path2integrity.eu](https://www.path2integrity.eu)

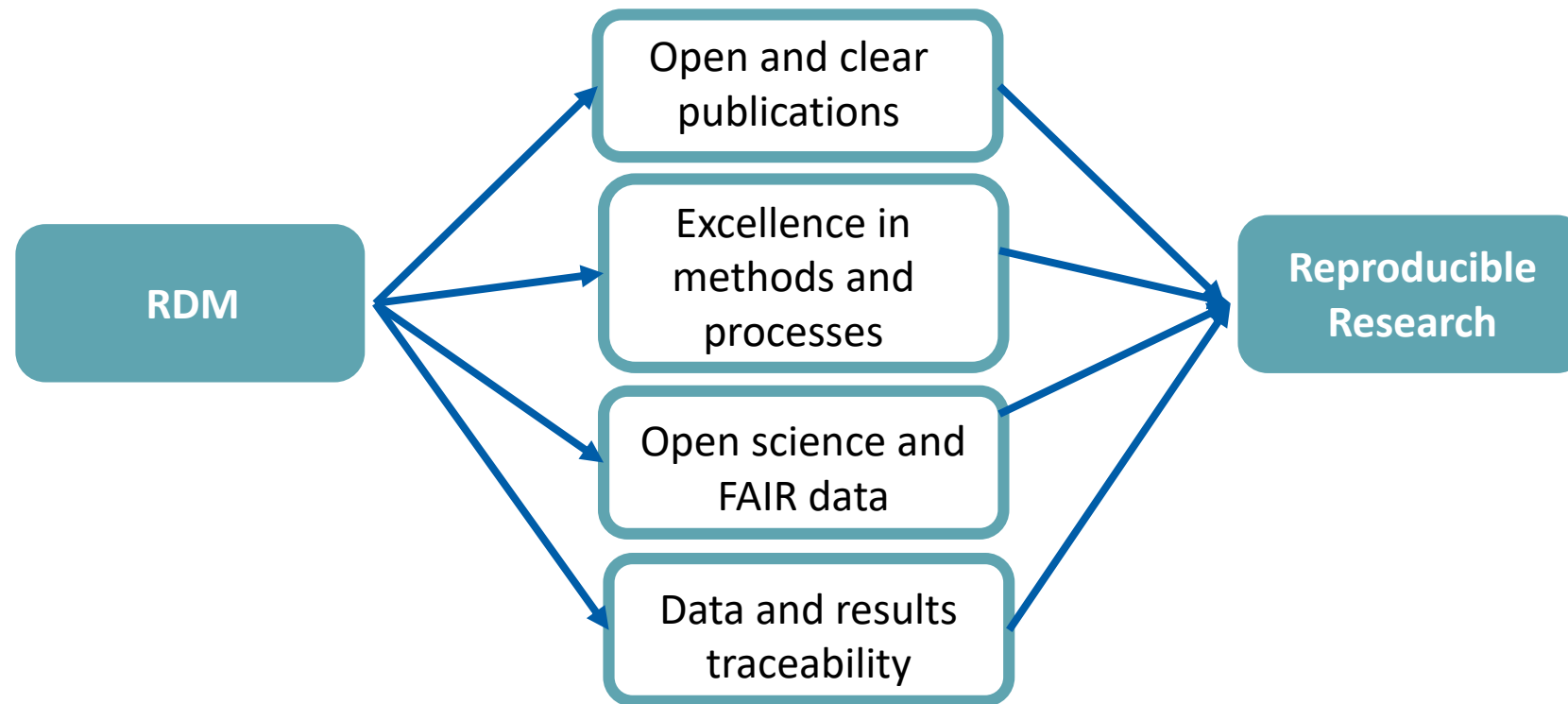
↔ Based on a **culture of trust** and **transparency**



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Emerging **European** dynamics towards more **reproducibility** in research, in a **data-driven world**

Relying first of all on diligent **Research Data Management**

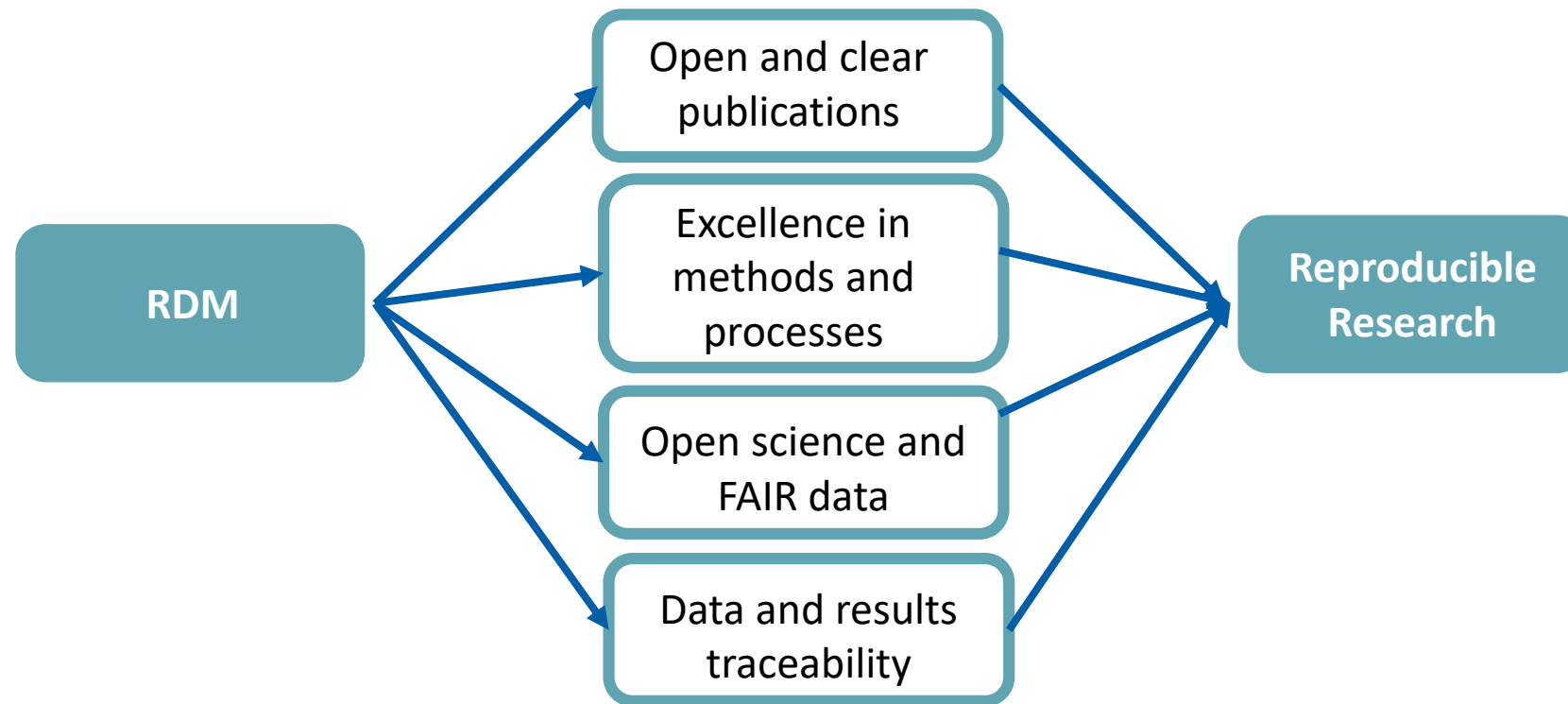




# Open science, ethics and reproducibility

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Good RDM habits ought to **be encouraged, facilitated and enabled** by institutions



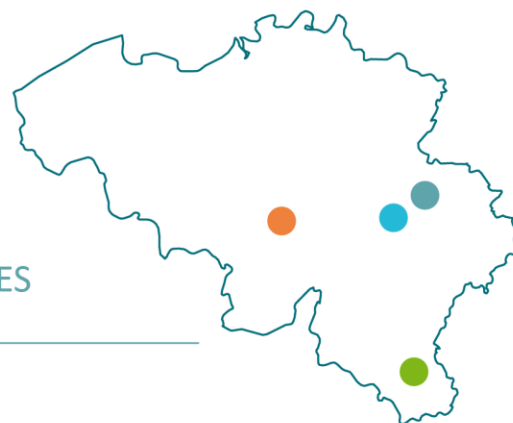
**2,960**

RESEARCHERS

**2,030**

RESEARCH  
CONVENTION

**3** CITIES  
**4** CAMPUSES



- Liège town-centre
- Liège Sart Tilman
- Gembloux Agro-Bio Tech
- Arlon Campus Environment

## 11 Faculties

► Philosophy and Letters

► Medicine  
*in association with Liège  
University Hospital*

► Psychology, Speech Therapy  
and Education Sciences

► Gembloux  
Agro-Bio Tech

► Law, Political science  
& Criminology

► Applied sciences

► HEC Liège,  
Management School

► Architecture

► Sciences

► Veterinary medicine  
*in association with Liège  
University Veterinary Clinic*

► Social Sciences



# Translating the cultural shift into actions

**2015**

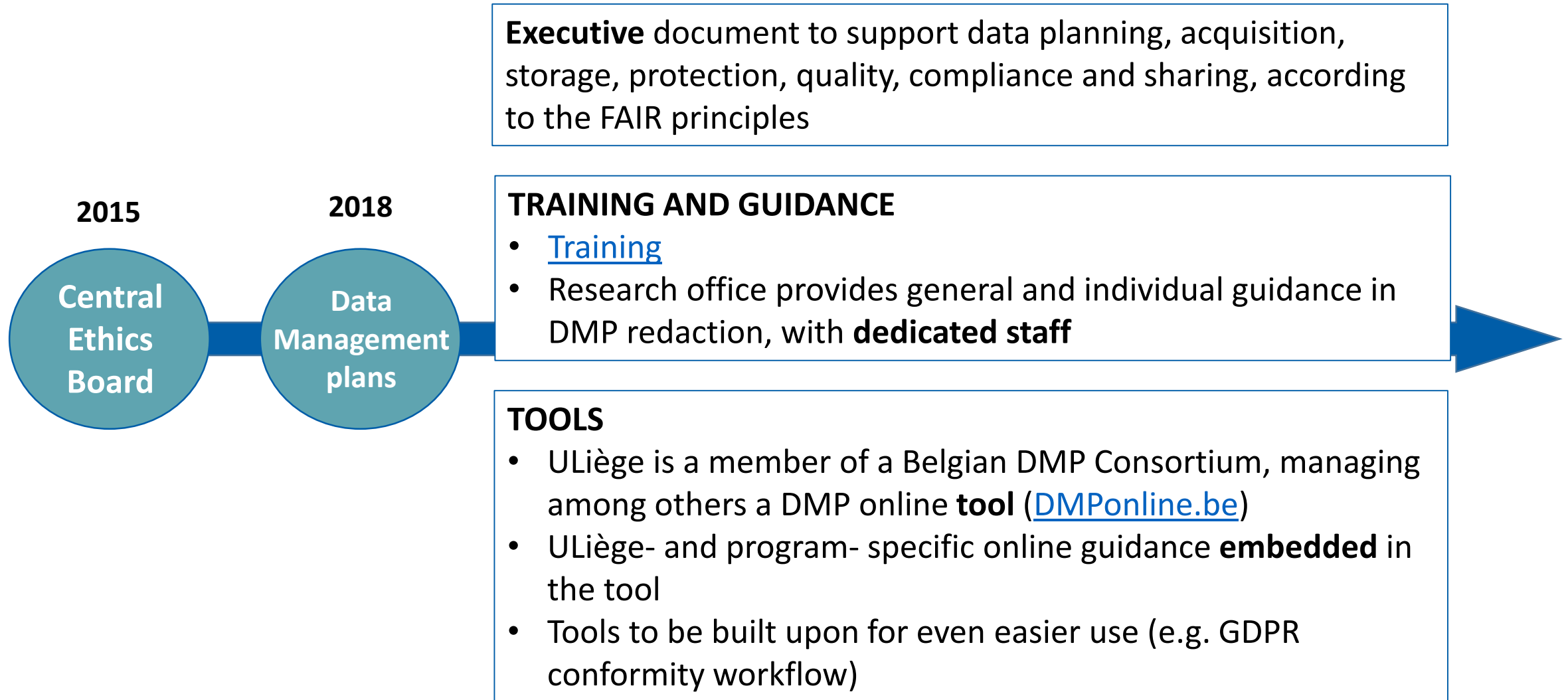
**Central  
Ethics  
Board**



General (non disciplinary) ethics council, provides advice, recommendations and processes regarding ethics and integrity (such as frauds, authorship, ...)  
RDM is an enabler of ethics

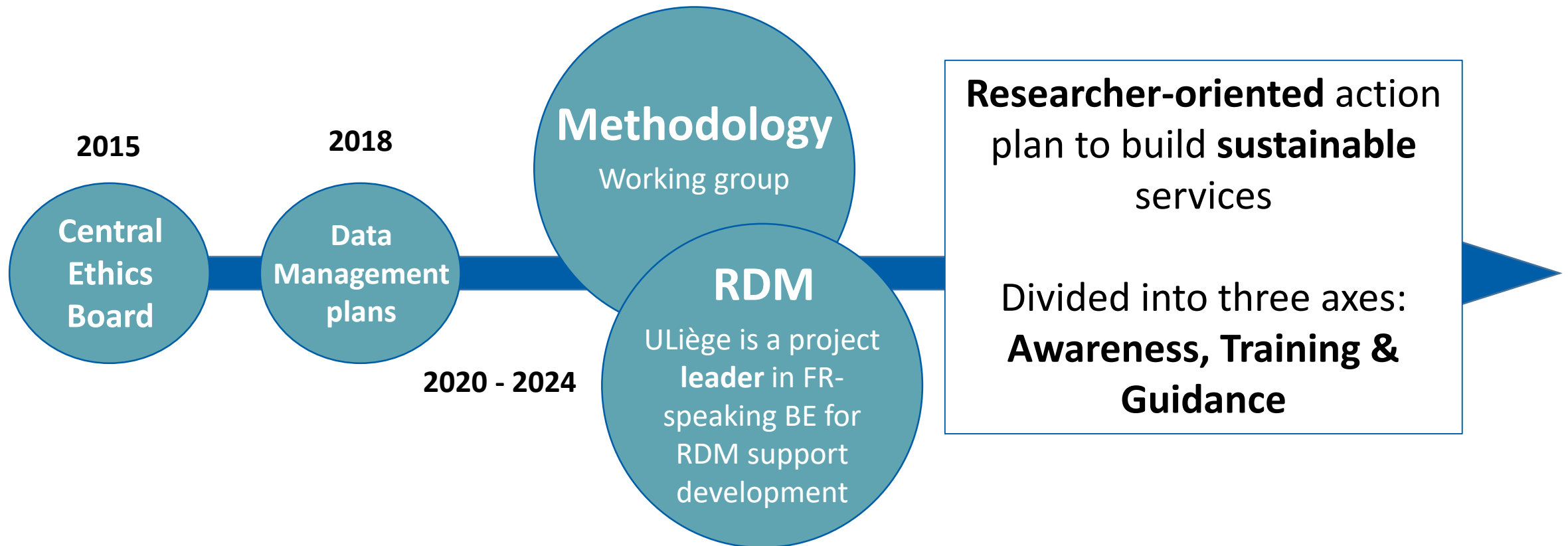


# Translating the cultural shift into actions





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Awareness	Training	Guidance
<p>Bringing up RDM topics in <b>welcome</b> seminars (PhD students, new research staff, new leaders, ...)</p> <p>Define and promote a <b>clear institution strategy</b>, stating expectations, priorities and processes (leading by example)</p> <p>Promoting <b>reference documents</b> (EU conduct code, ethics code, ...), institution processes, pamphlets or other permanent materials through usual communication channels (newsletter, website, ...) + creating these materials if needed</p>		



# Translating the cultural shift into actions

Awareness	Training	Guidance
<p>Setting up regular and diverse <b>seminars</b> and workshops, from bite-sized to roundtables (make use of newly gained online meeting literacy!)</p> <p>Relying on a community of <b>data champions and/or stewards</b></p>		



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**TIP:** Build on what already exists (gap analysis)



# First feedback

## Internal actions

Axis	Action item	Feedback	
Training and guidance	DMPonline.be guidance and trainings	<ul style="list-style-type: none"><li>- Increased awareness</li><li>- Increased use of the tools</li><li>- Better confidence in applications</li></ul>	<ul style="list-style-type: none"><li>- Increased interaction with research support staff (be ready for more demands)</li></ul>





# First feedback

## Internal actions

Axis	Action item	Feedback	
Training and awareness	<b>4h Training session « Responsible RDM »</b> (overview of RDM issues at each step of the data lifecycle, tips and tricks, support within ULiège)	<ul style="list-style-type: none"><li>- Strong demand (4 extra sessions)</li><li>- Wide audience (all career stages + support staff)</li><li>- Triggered many follow-up actions</li><li>- The online modality allowed for more attendance</li></ul>	<ul style="list-style-type: none"><li>- Too much information in too little time -&gt; split into bite-sized sessions</li><li>- The support staff needs to be ready to address all the follow up actions</li><li>- The online modality requires extra interaction effort</li></ul>



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**TIP:** Provide context, keep it positive and bottom-up



# First feedback

## Internal actions

Axis	Action item	Feedback	
Guidance	Beta testing of research data management solutions with a volunteer focus group (ELN and DataVerse)	<ul style="list-style-type: none"><li>- Researchers appreciate being consulted: it's their solutions so they need to have a say in the selection process</li><li>- To be able to set expectations, the institution needs to provide solutions for researchers to be able to meet them</li></ul>	<ul style="list-style-type: none"><li>- Researchers are volunteering time -&gt; overhad work to minimise their workload is massive</li><li>- No one size fits all -&gt; priorities need to be clearly defined</li></ul>



# First feedback

## External actions (with FR-BE institutions)

Axis	Action item	Feedback	
<b>Awareness and Guidance</b>	<b>Creating a network of research support staff</b>	<ul style="list-style-type: none"><li>- Exchange of good practice and good habits for optimal work in all the FR-BE institutions</li><li>- Complete set of skills by pooling a wide research support staff community</li><li>- Sharing of awareness materials, useful resources while « not reinventing the wheel »</li></ul>	<ul style="list-style-type: none"><li>- The reality of each institution needs to be respected -&gt; not everything can be pooled</li><li>- Not all institutions start from the same level -&gt; split, division</li></ul>



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**TIP:** Find a travel buddy



# Research data champions

Central RDM support lacks:

Knowledge of  
all Faculties  
work culture

Discipline-  
specific  
expertise

Physical access  
to some  
Faculties  
(scattered)

Time and  
resources to  
individually  
tailor  
recommendations

The peer-to-peer  
approach to  
engagement and  
motivation

Solution : rely on a community of ambassadors within the various Faculties /  
Departments / ...

**Data Champions**



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*Creating a Community of Data Champions*, Higman, Teperek & Kingsley,  
International Journal of Digital Curation 2017, Vol. 12, Iss. 2, 96–106, DOI:  
10.2218/ijdc.v12i2.562 avec appendice

<https://www.repository.cam.ac.uk/handle/1810/262192>

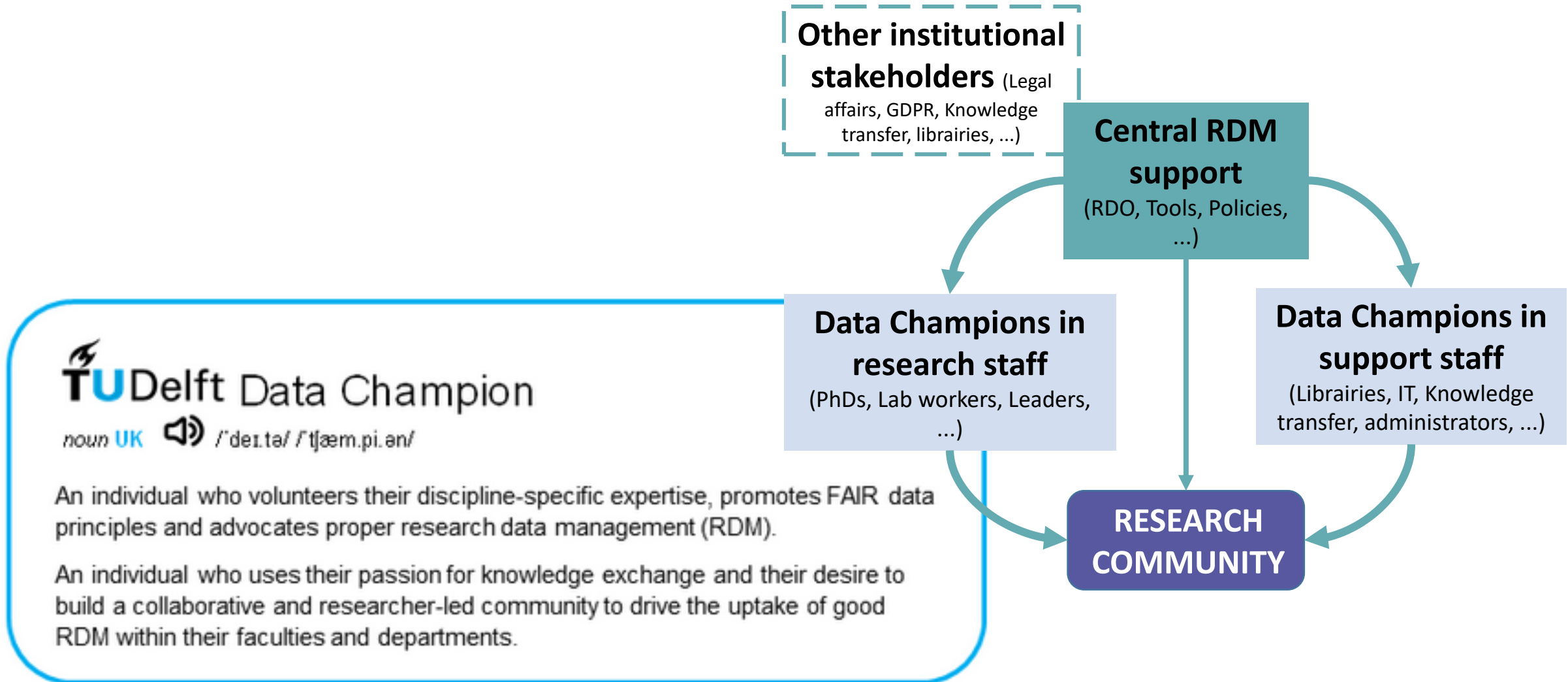
*How to build a community of Data Champions: Six Steps to Success*, Connie Clare,  
doi:10.5281/zenodo.3383814

<https://openworking.wordpress.com/data-champions/>

**TIP:** Get inspired  
by these two  
success stories !



# Research data champions







# Research data champions

## What do they do ?

They **inspire** their colleagues to work in compliance with the FAIR principles

They **promote** responsible RDM

They **translate** institution recommendations into discipline-specific tips

They **communicate** with the RDP to report issues, ideas, demands and to provide expertise when needed

They **represent** RDM quality outside of the University

In practice :

Seminars, FAQ, emails, 1 to 1, ... Up to them since they volunteer their time

Example : expected to deliver at least one workshop or to participate in at least one event

Example of topics : data repositories, data sharing, code management, GitHub, ELN, data regulations, data storage, ...



# Research data champions

## What is in it for them ?

Being part of an RDM-focused **community** (pref. outside Uni walls! )

Obtaining **practical help** from the RDO in organising, advertising or managing events or materials

**Accessing** training sessions and DC events, networking

Being **promoted** as a quality RDM ambassador

Developing their **skills** and **leadership**

Adding value to their **career**

In practice :

Maintaining a community spirit with regular events, facilitate communication

Coaching, support, help should be provided for any DC who demands it

The DC should have a lot of flexibility as well as clear expectations (they volunteer !)

The DC should gain legitimacy (signature badge, endorsement from RDO, ...)



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Obtaining **practical help** from the RDO in organising, advertising or managing events or materials

Accessing **networking** opportunities, events,

Being **promoted** as an ambassador

Developing **partnership**

Adding value to **career**

**TIP:** Anticipate 0.3-0.5 FTE to set up the community and 0.2 FTE to keep it up

In practice :

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Coaching, support, help should be provided for any DC who demands it

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# Good habits for good science

Universities should provide **practical support** to RDM in the forms of awareness, training and guidance resources (having expectations means being able to deliver)

**Responsible  
and open  
science**

Researchers should be able to formulate demands, concerns, and to **participate** in the cultural change towards transparency and integrity



Thank you

**ULiège Research Office**

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