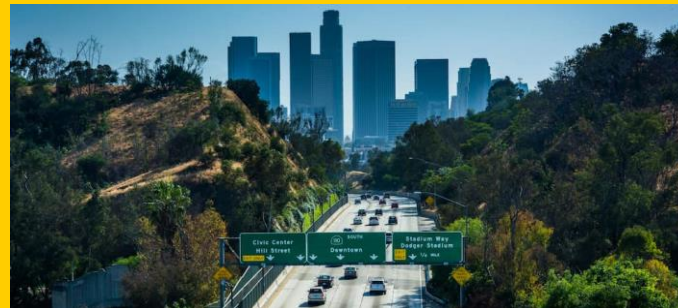


A roadmap to eliminate roadblocks on the way to LA

MARIJE GOUDRIAAN, ANOUSCHKA VAN LEEUWEN, ÜNAL AKSU, MOMENA YOUSUFZAI

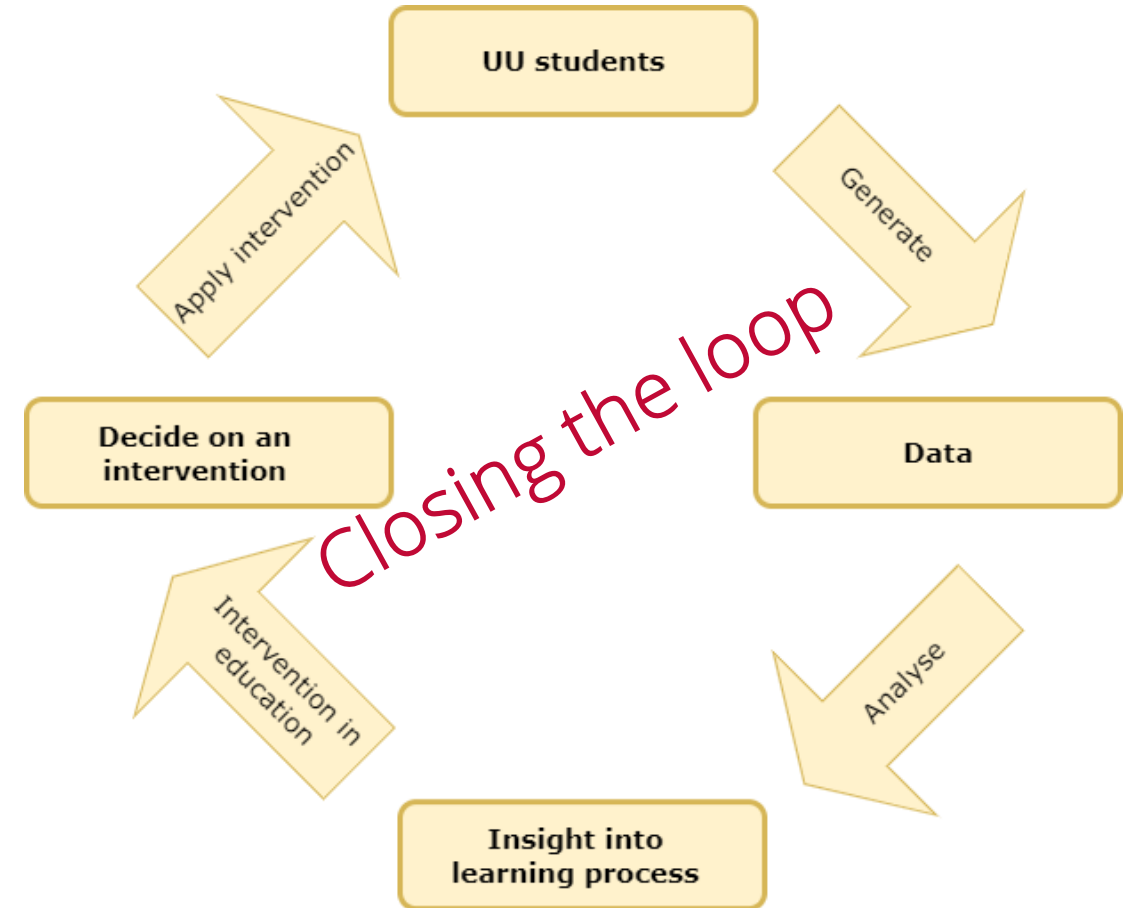
 learninganalytics@uu.nl



What?

Learning analytics in education

“The measurement, collection, analysis, and reporting of data about learners and their contexts, for purposes of understanding and optimizing learning and the environments in which it occurs.”



Why?

Strategic plan, SO&O ambition, and ITS domain plan

We will deploy learning analytics in order to further improve the quality of teaching, student counselling and guidance, and teaching materials. We will reinforce the relevant infrastructure and develop accompanying policy that takes the GDPR, privacy issues and ethical guidelines into account.

Meer focus op data

Ontwikkelingen zoals *learning analytics*, *smart buildings* en analyse van research data zorgen voor meer data en vragen om meer focus op data. Ook wordt data steeds belangrijker voor *business intelligence*, *data science* en *data-informed decision making*. Verder zien we dat er naast verantwoordingsinformatie steeds meer vraag is naar (voorspellende) stuurinformatie.

How?

Team learning analytics



Dr. Anouschka van Leeuwen,
Project manager +
Educational scientist



Dr. Marije Goudriaan
Coordinator LA data platform



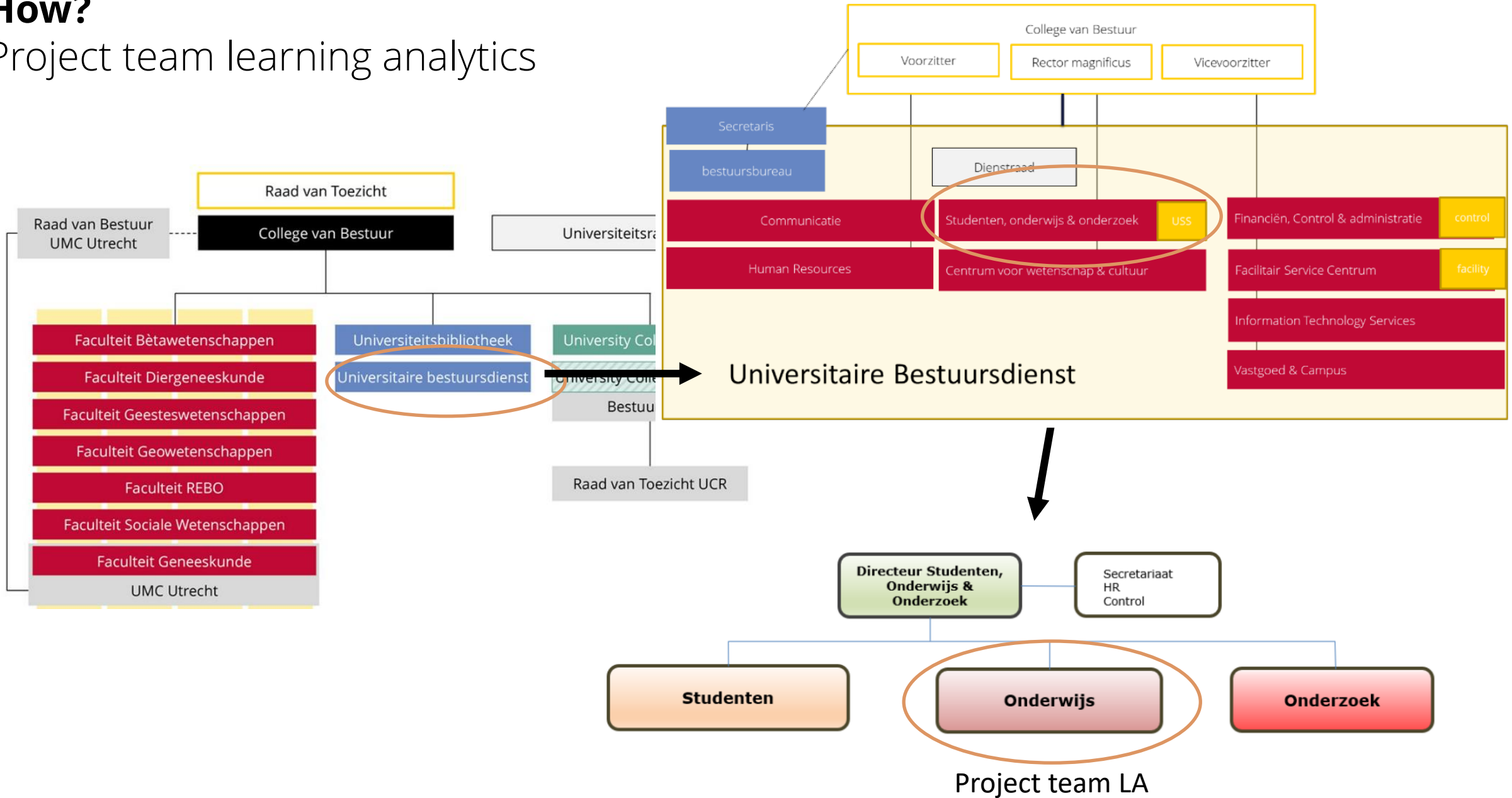
Mr. Momena Yousufzai
Privacy Officer



Dr. Ünal Aksu
Data engineer

How?

Project team learning analytics



How?

Top-down-bottom-up approach

Top-down

Learning analytics policy
Proper technical infrastructure
Collaborations and dependencies



Bottom-up

Projects are initiated by students
and staff within the faculties.



How?

Creation of learning analytics policy

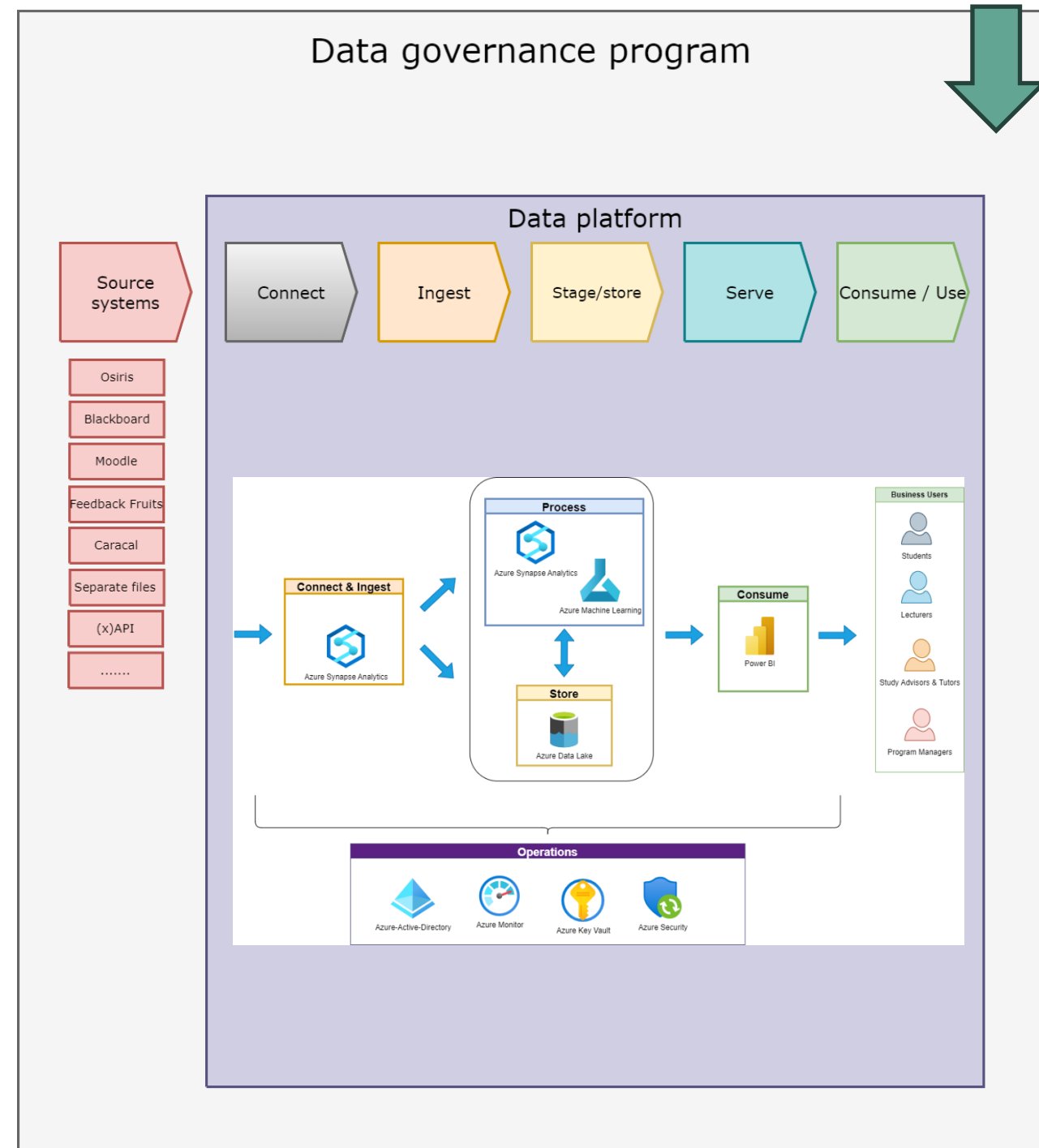
1. Definition and background of learning analytics
2. Goals of learning analytics
3. Ethical and legal standards learning analytics



How?

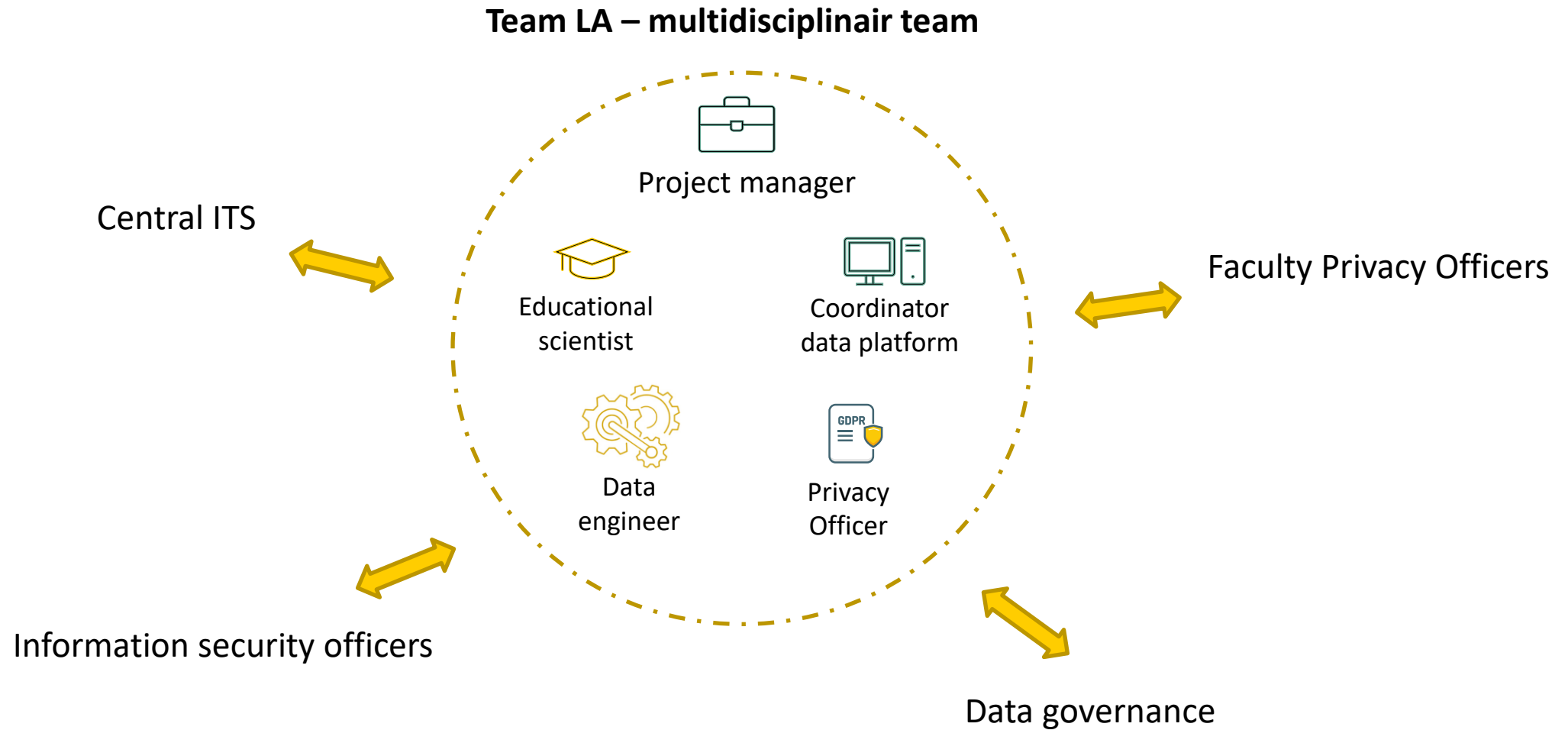
Development technical infrastructure

- Flexible (add the components that you need)
- Capable of handling different types of data (incl unstructured and streaming/real-time data)
- Allows for more advanced analytics (e.g. machine learning)
- Scalable
- Easy to maintain (e.g. cloud)



How?

Overview of dependencies and collaborations



How?

Top-down-bottom-up approach

Top-down

Learning analytics policy
Proper technical infrastructure
Collaborations and dependencies

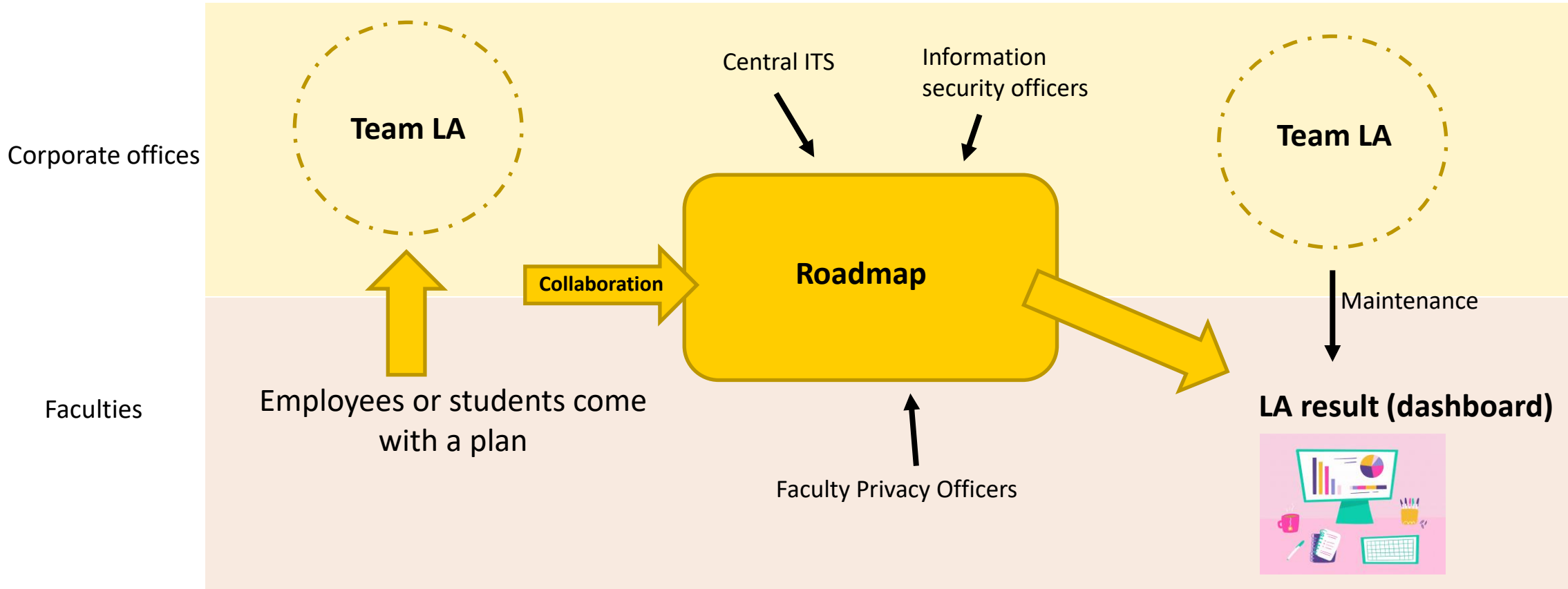
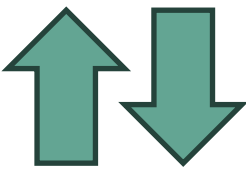


Bottom-up

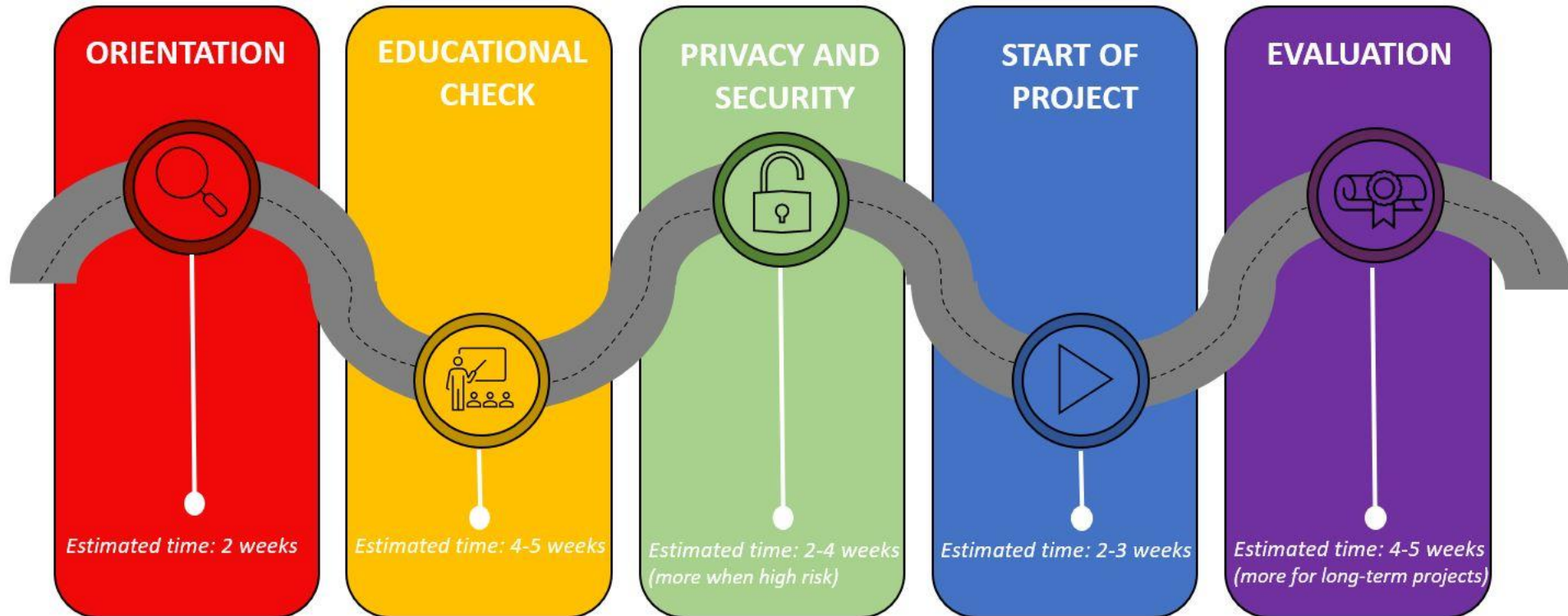
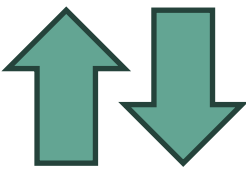
Projects are initiated by students
and staff within the faculties.



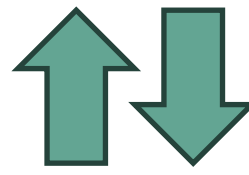
The top down-bottom-up approach



The roadmap



The roadmap



Orientation

Determine if the project falls under LA, fits in our policy, and how team LA can assist.

Educational check

Assess the reason for initiating the project. Is it new?

Determine if the project can have a positive impact on education

Privacy and security

Ensure that the privacy of those involved is protected and that appropriate security measures are taken. Assess if a DPIA is needed, for example.

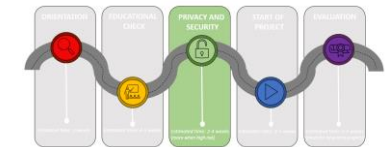
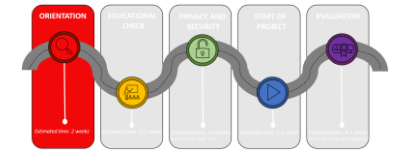
Start of the project

Getting access to the data from the data owner and the system owner

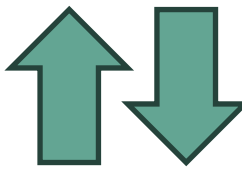
Start technical realization of the project

Evaluation

Evaluation plan if the goal is reached, and if the project can be consolidated.



The roadmap Online

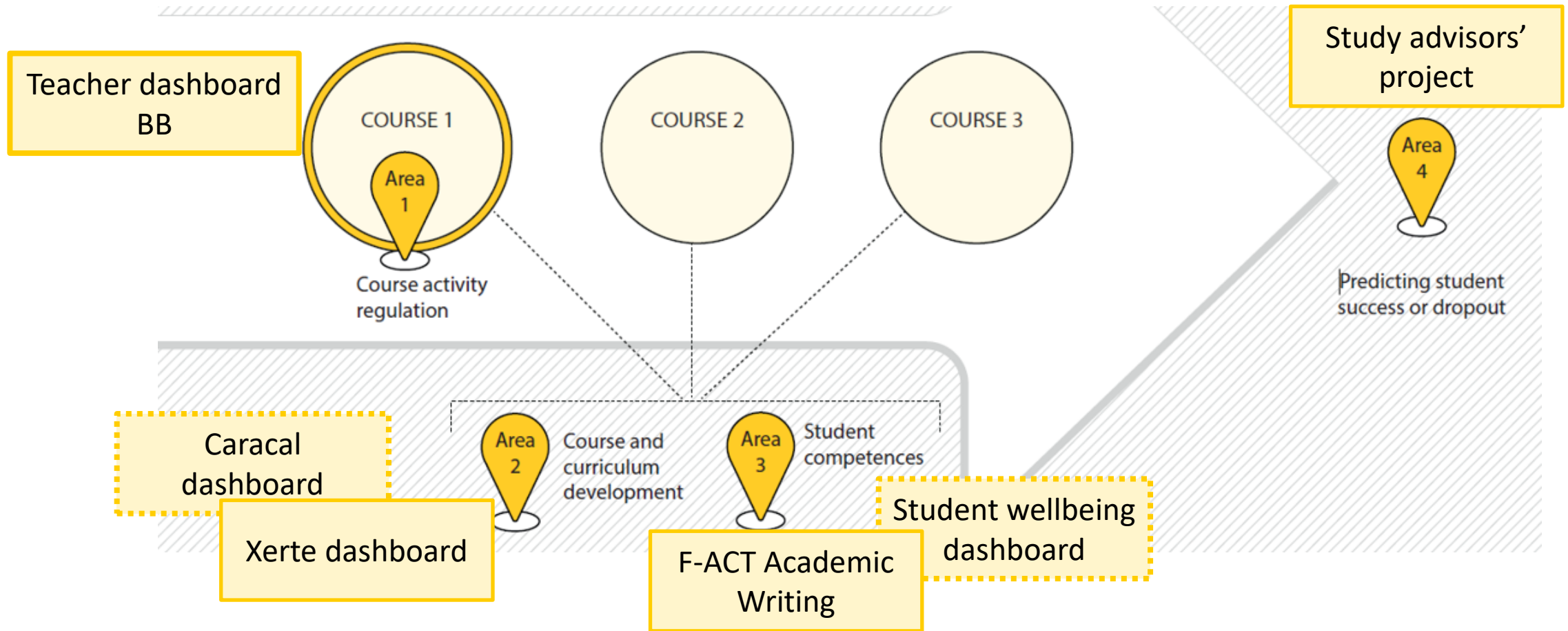
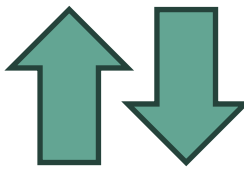


The screenshot shows the Utrecht University Intranet Knowledge base page for Learning Analytics. The page has a yellow header with the Utrecht University logo and 'Intranet' text. A search bar is present. Below the header is a navigation bar with links for News, Events, Teaching, Research, Organisation, and Groups, along with an Emergencies link. The main content area is titled 'Knowledge base' and features a 'View' button, 'Edit', and 'Revisions' options. A note indicates the page was last edited by m.goudriaan1@uu.nl on 26 April 2023 at 11:48. The main heading is 'Learning Analytics' with a sub-heading 'UU, Science, VET, HUM, UMC, GEO, LEG, FSBS, UBD and Library'. The text describes Learning Analytics (LA) as gaining insights from study data to improve education. A yellow button labeled 'GO TO THE ROADMAP DIRECTLY >' is prominent. Below this, the text asks 'What is learning analytics?' and provides a definition of LA as the measurement, collection, analysis, and reporting of data about learners and their contexts. A list of documents is shown on the right side of the page, including '1.1 Checklist LA types', '1.2 LA policy UU', '1.3 Explanation roles in LA project', '2.1 Preparatory questions meeting team LA', '3.1 Procedure educational check', '3.2 Educational check form', '4.1 Procedure data classification', '5.2 Contact information privacy officers', '5.3 Privacy scan template', '5.4 Privacy statement template', '6.1 DPIA template', '9.1 Procedure to request technical assistance', and '10.1 Knowledge sharing form'.

<https://www.uu.nl/en/education/learning-analytics>

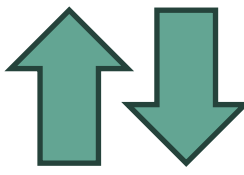
LA projects

That went through the roadmap



The roadmap

Experiences so far



- Offers clarity to all involved stakeholders
- Makes sure that the result is sound and transparent



- Dependent on many involved parties
- Time-consuming process, also for the involved staff
- Bottom up approach means scaling up is difficult ~ consider more focus on top down?
- Not yet clear what long term maintenance will look like



**Utrecht
University**

Sharing science,
shaping tomorrow



learninganalytics@uu.nl