
USING BI FOR EVALUATION AND QUALITY ASSURANCE ON DEGREE PROGRAMMES AND INSTITUTIONAL LEVEL

- A DANISH EXAMPLE



AARHUS
UNIVERSITET

FREDERIK LANGKJÆR AND HANNE THOMSEN
TEAMCOORDINATOR AND SPECIAL CONSULTANT

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TARTU

AGENDA

- Short Introduction to Aarhus University
- The Overall Framework for Quality Assurance at Aarhus University
- The different levels of Quality Assurance
 - The day-to-day Quality Assurance
 - The Holistic View
 - Cross-organisational processes
- Known issues, further development and on-going discussions
- Questions and comments

KEY FIGURES AT FACULTY LEVEL

ARTS

3 departments

950 FTEs

14,205 students

250 PhD students

DKK 1,062 billions

AARHUS BSS

7 departments

875 FTEs

16,859 students

238 PhD students

DKK 1,067 billions

SCIENCE AND TECHNOLOGY

14 departments

2,145 FTEs

8,090 students

695 PhD students

DKK 2,622 billions

HEALTH

5 departments

1,062 FTEs

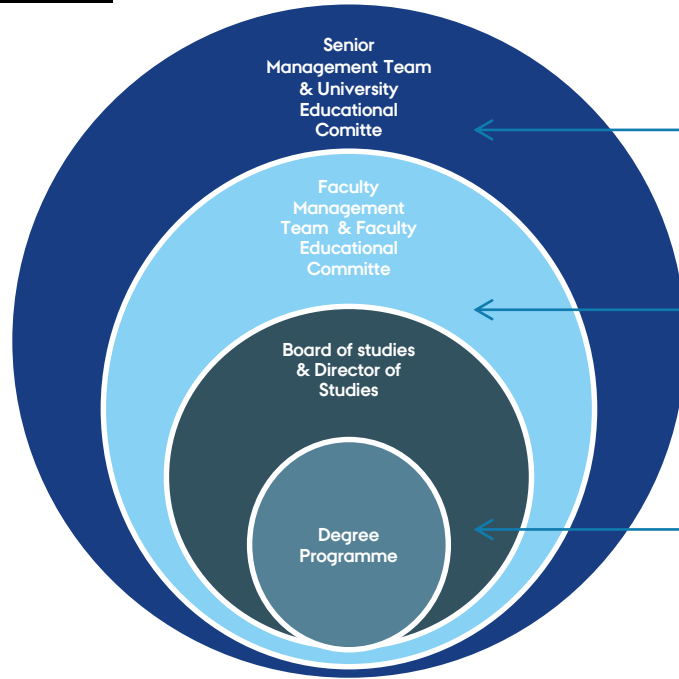
5,214 students

644 PhD students

DKK 1,503 billions

AARHUS UNIVERSITY

ORGANIZATION OF EDUCATION AT AARHUS UNIVERSITY



Administrative support:

Central Administration and Senior Management Administration

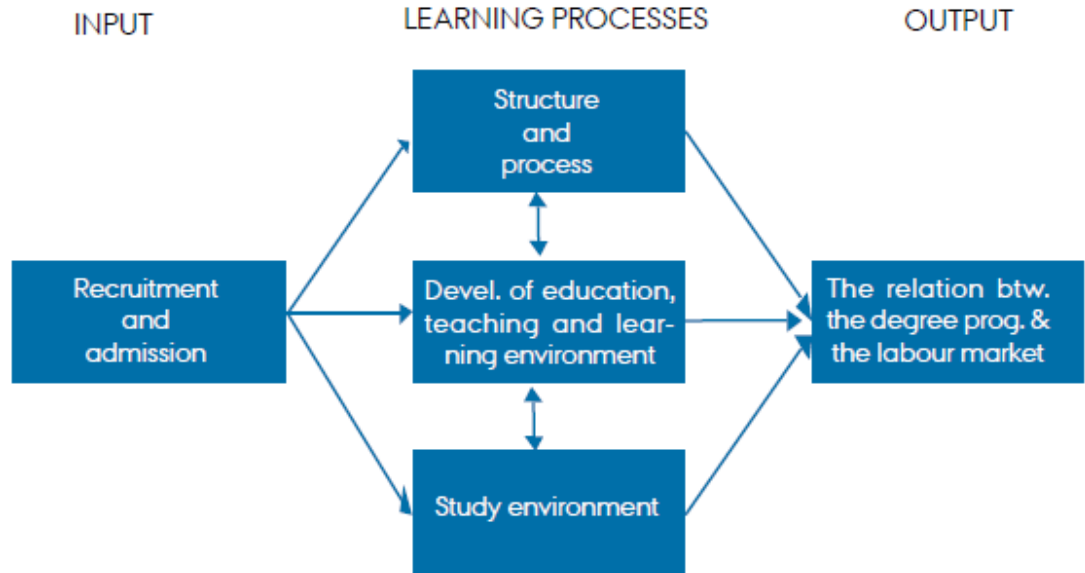
Faculty Management administration

Faculty Administration Center

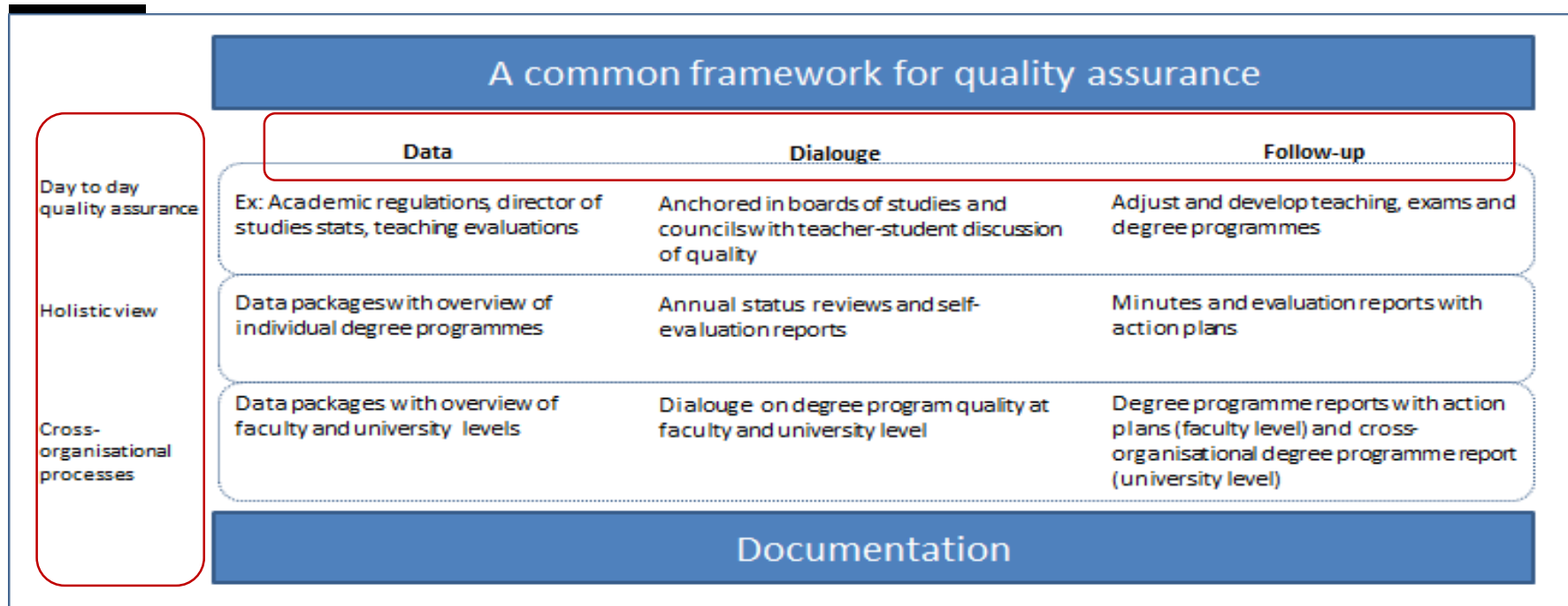
AU'S QUALITY ASSURANCE POLICY

AU's quality assurance policy provides a common set of core values for the quality assurance work performed at all of the university's campuses and faculties.

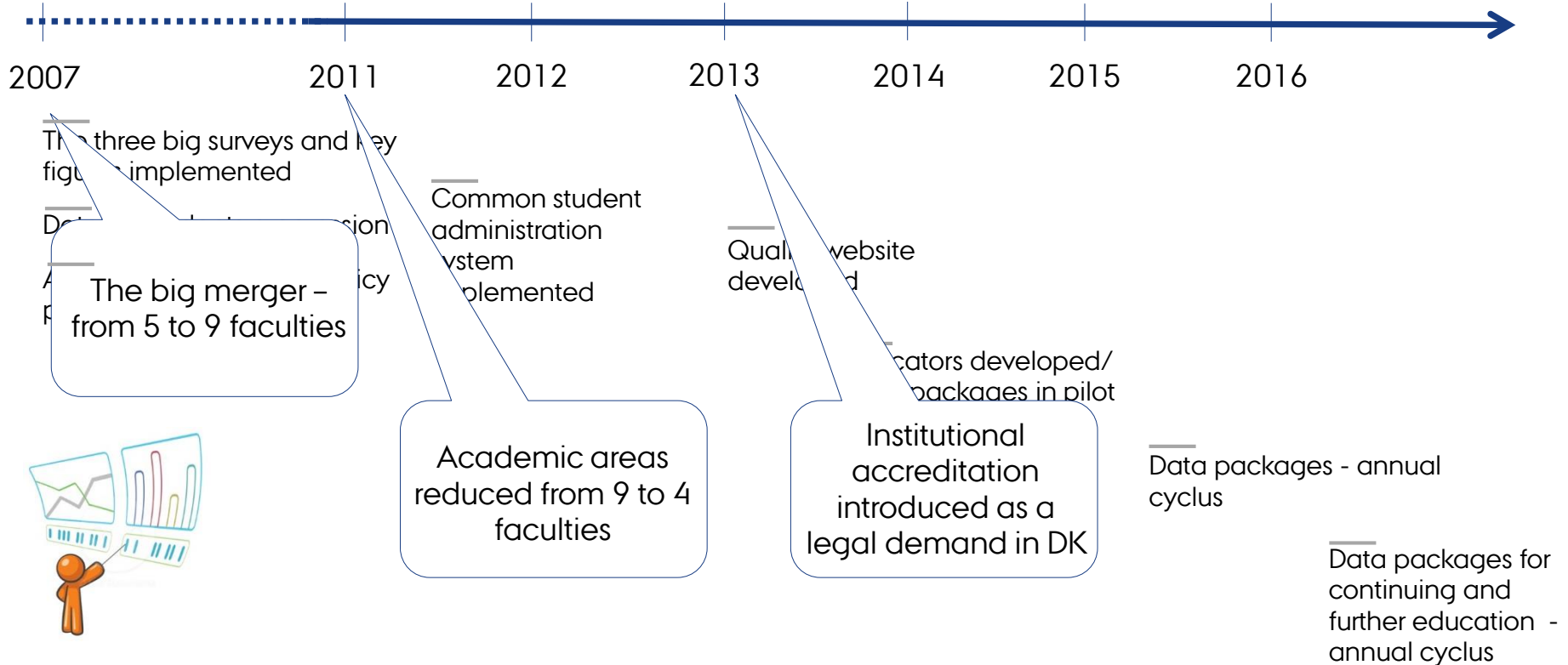
The quality assurance policy is subdivided into five sub-policies.



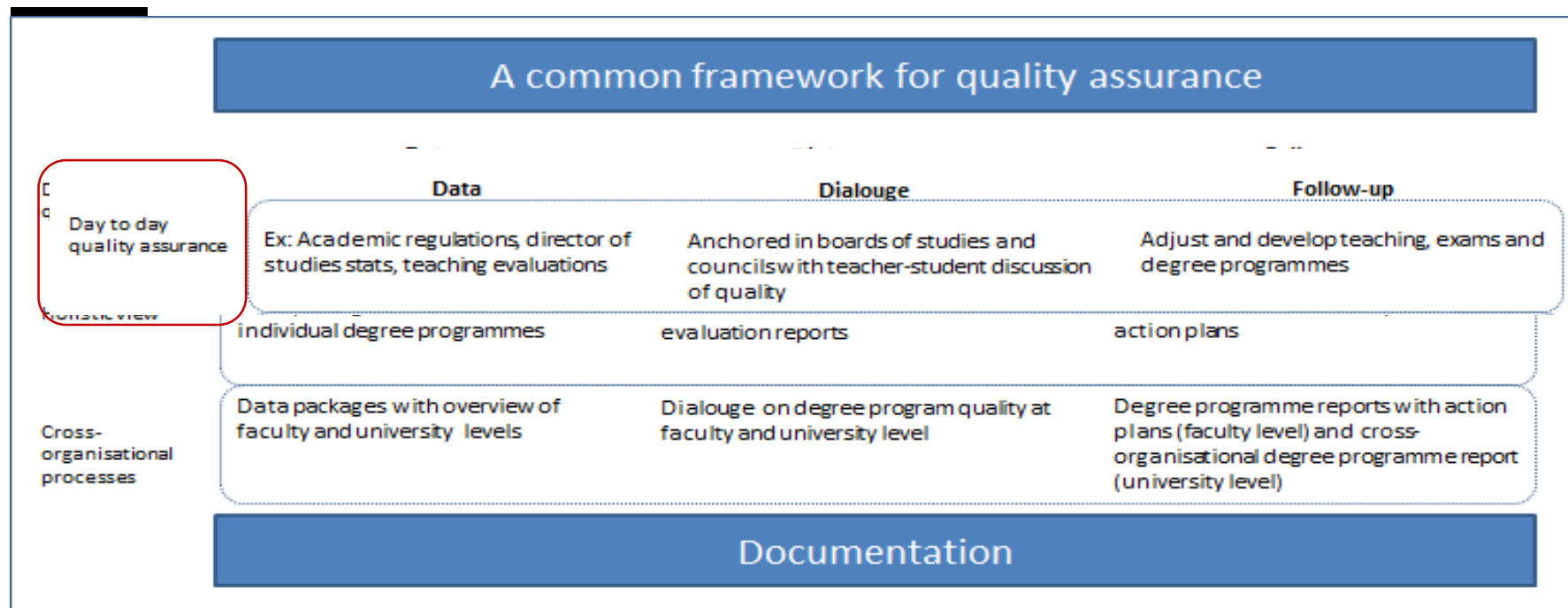
AU'S QUALITY ASSURANCE PROCESSES



HISTORICAL OVERVIEW – MANAGEMENT INFORMATION (EDUCATION)



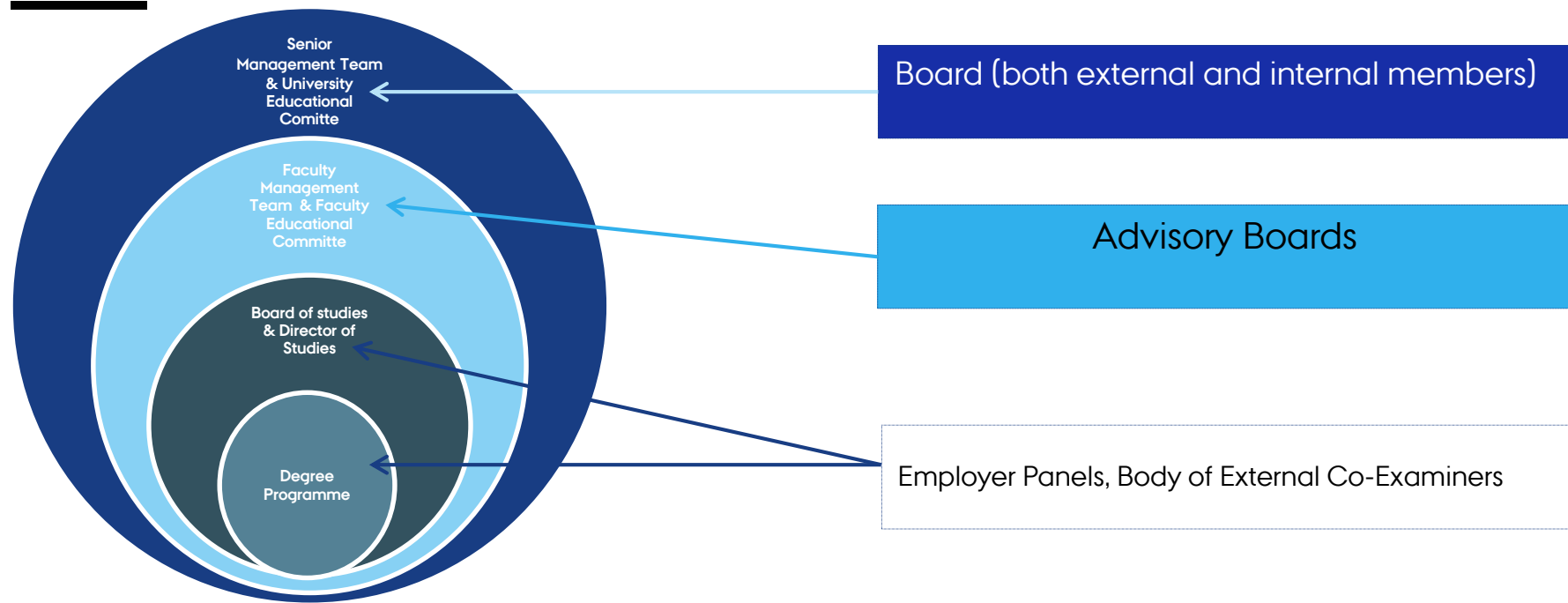
LEVEL 1: DAY TO DAY QUALITY ASSURANCE



DAY-TO-DAY QUALITY ASSURANCE

- The "backbone" of QA based on a long tradition of local quality assurance
- Anchored in Board of Studies (programme level), educational committees (faculty and university level) and management structure
- Addressing educational quality through:
 - on-going dialogue between students, staff and management
 - course evaluations
 - adjustments in curriculum, exams and study regulations
 - immediate follow-up on surveys, student progression and local initiatives
 - discussions on educational politics, framework and procedures
 - coordination, sharing knowledge and good practice

INVOLVING EXTERNAL STAKEHOLDERS IN THE DAY-TO-DAY QUALITY WORK

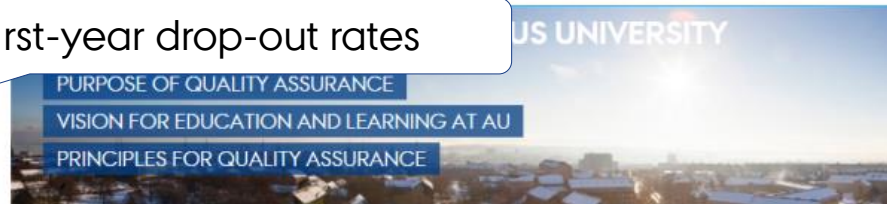


» Documentation

- > [Aktuel ledighed](#)
- > [Ansøgnings- og optagelsesstatistik](#)
- > [Bachelors](#)
- > [Beskæftigel](#)
- > [EDDI/studieordning](#)
- > [Eksamenssnyd](#)
- > [Frafald - uddannelsesårsager](#)
- > [Førsteårsfrafald](#)
- > [1. septembertal](#)
- > [Internationale studerende - udveksling](#)
- > [Nye uddannelser og udbud](#)
- > [Nyuddannedes beskæftigelse](#)
- > [Optagelsestal \(1. oktober\)](#)
- > [Rekrutteringsundersøgelsen](#)
- > [Studerendes søgemønstre](#)
- > [Studieledertal](#)
- > [Studiemiljøundersøgelsen](#)
- > [Uddannelsesevaluering](#)
- > [Undervisningsevaluering](#)
- > [Årets ansøgere og optag](#)
- > [Årgangstatistik](#)

Reports about first-year drop-out rates

You are here: [AU](#) » [Staff](#) » [Strategy and management](#) » [The education committee](#) » [Quality assurance at Aarhus University](#)

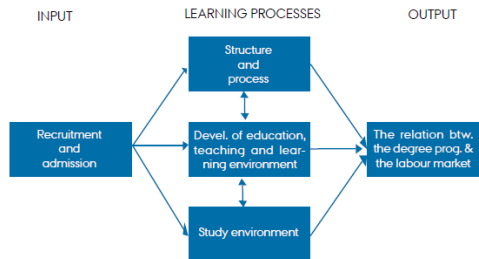


Welcome to Aarhus University's portal for quality assurance in education. Quality assurance is based on and is built up around Aarhus University's policy for quality assurance in education.

Above there is the opportunity to read about the purpose of quality assurance work, Aarhus University's vision for education and learning, as well as the principles of quality assurance by clicking on the headlines.

In the right menu, there are links to relevant pages on quality and strategy in the field of education at Aarhus University as well as links to the faculties' as the central administration's quality practices.

The five sub-policies of Aarhus University's policy for quality assurance in education



Danish



Documents

- > [AU's policy for quality assurance in education](#)
- > [AU's education strategy](#)
- > [AU's student counselling and career guidance](#)
- > [AU: Law on transparency](#)

Quality assurance at the faculties

Contact

© — Contact webeditor

Cookies at au.dk

» Documentation

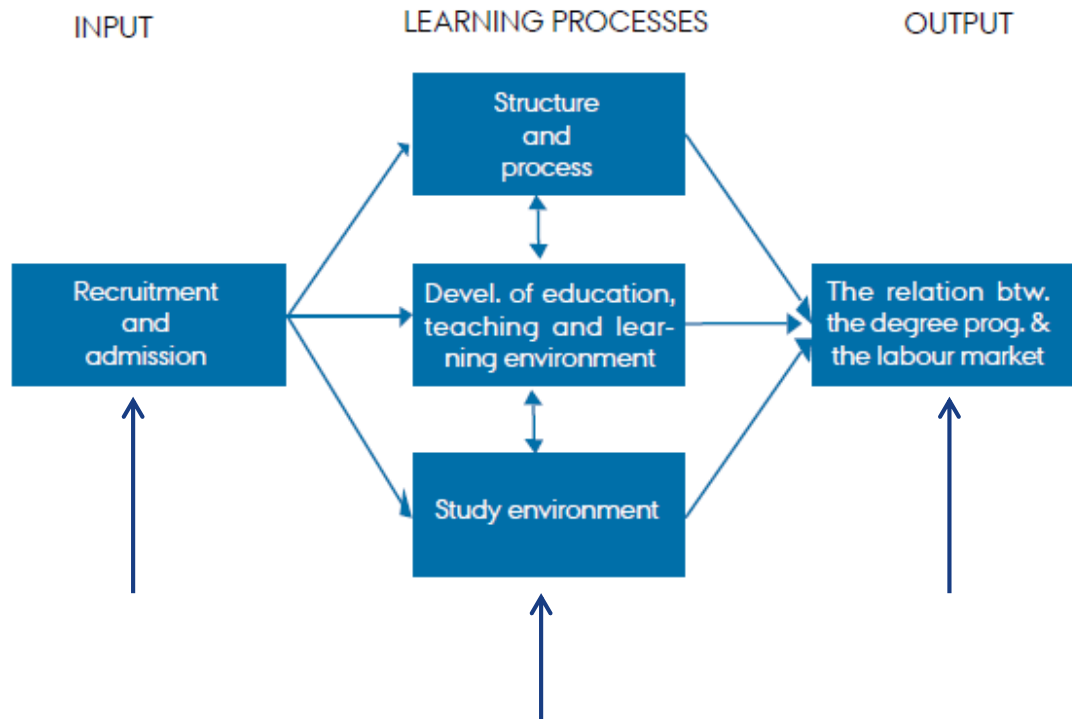
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Employment Survey

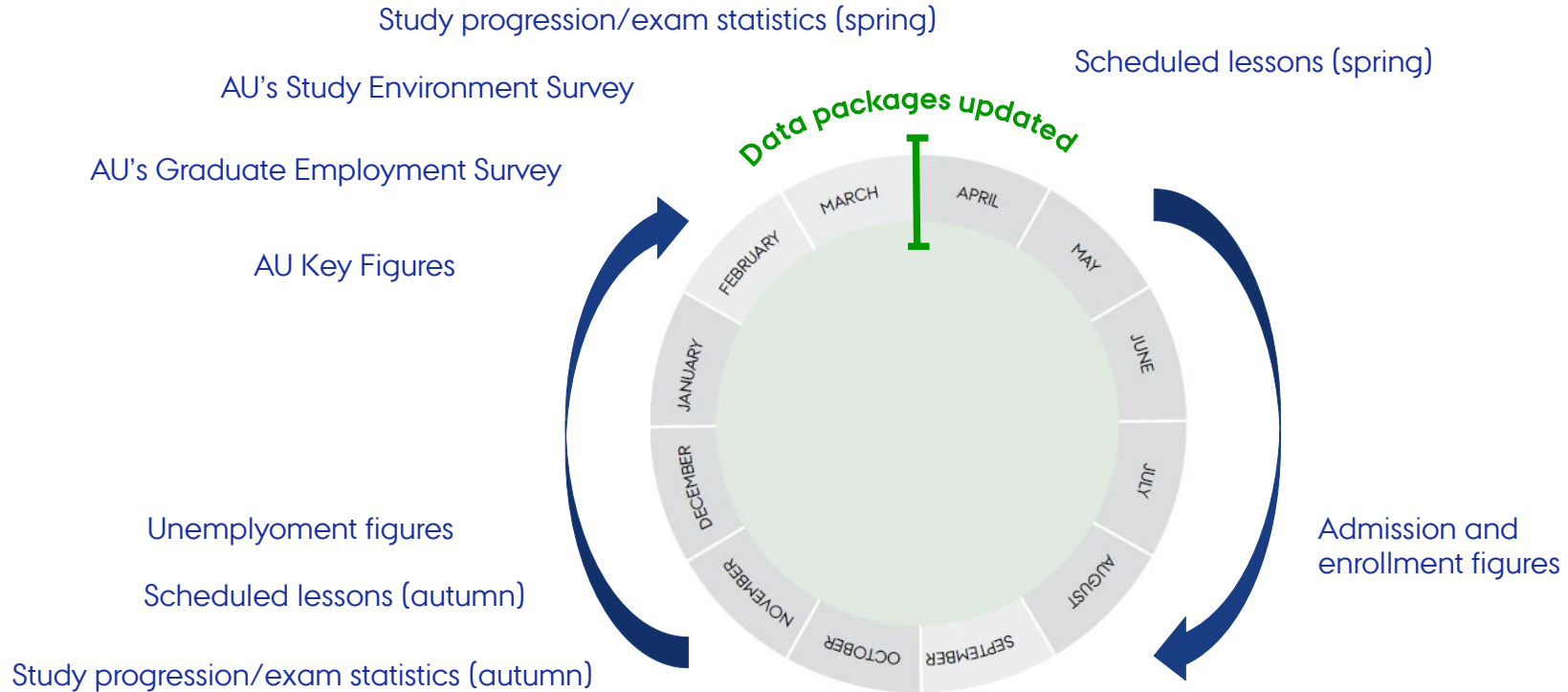
Recruitment Survey

Study Environment Survey

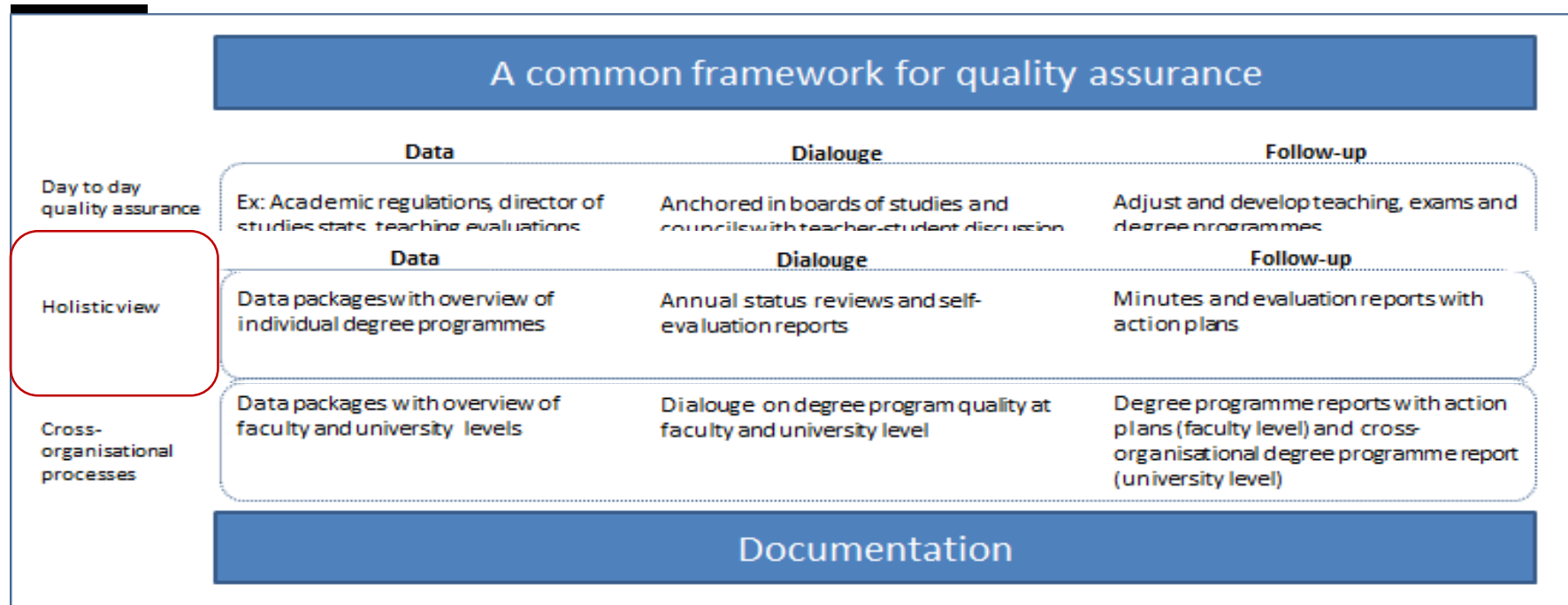
Documentation is related to the five sub-sections



ANNUAL CYCLE FOR DATA: SUPPORTS ANNUAL STATUS REVIEW AND DEGREE PROGRAMME EVALUATION



LEVEL 2: HOLISTIC VIEW



ANNUAL STATUS REVIEW AND DEGREE PROGRAMME EVALUATION

All degree programmes carry out an internal annual status review. The review is carried out in three steps:

- i. a datapackage including performance-indicators and key figures is discussed in the board of studies and with other internal stakeholders related to the programme
- i. The degree programme management discuss the datapackage and other relevant issues regarding the programme with the vice-dean of education. All sub-sections from the quality assurance policy must be addressed at the meeting. If three or more indicators are red a special meeting with the Dean is arranged.
- i. Based on the discussions from the meeting, the programme management makes an actionplan for adressng the most important challenges and goals for further development of the programme.

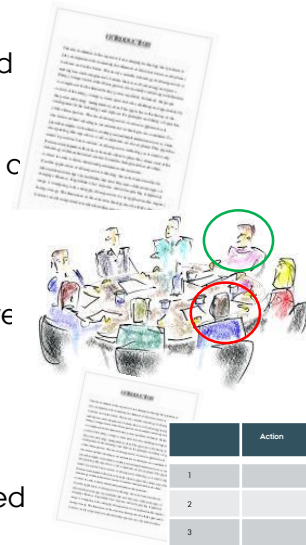


	Action	Responsibility	Timeframe
1			
2			
3			

PROGRAMME EVALUATION

All degree programmes must go through an in-depth evaluation every 5th year with participation of an external expert as well as a wider circle of internal stakeholders and management representatives. The evaluation includes:

- i. A self-evaluation report written by the programme management in collaboration with the board of studies and the head of department. The report must include both indicators and other key figures as well as more qualitative discussions of strengths, weaknesses and long term development plans for the programme. The report is sent to the external expert, representatives of the employer panel and the head of external examiners prior to the evaluation meeting.
- ii. The evaluation meeting includes both management, student representatives and the external expert(s) and addresses all parts of the programme. Areas pointed out by the external expert are given extra attention as is the degree programmes' thoughts on employability and interaction with the labor-market.
- iii. After the meeting, an evaluation report is written outlining the most important areas of discussion and including action plans for further programme development. An executive summary is provided to the faculty management.



	Action	Responsibility	Timeframe
1			
2			
3			

WHAT IS A DATA PACKAGE?

A word report presents a large variety of key figures for a degree programme.

A data package is based on Word (templates) and

Excel due to:

- Part 1: Indicators with threshold values (A tight time schedule (8 months) monitored by red, yellow and green flags)
- Flexibility in development and adjustment
 - The threshold values of two indicators are determined at AU level (senior management), the rest are set locally by faculty or board of studies
- Common used programs
- No money level
- Part 2: Supplementary figures



WHAT IS A DATA PACKAGE?

- CONTINUED



“The engine behind” – the database:

- Two Excel files (one with indicators and one with supplementary figures)

Drawing reports:

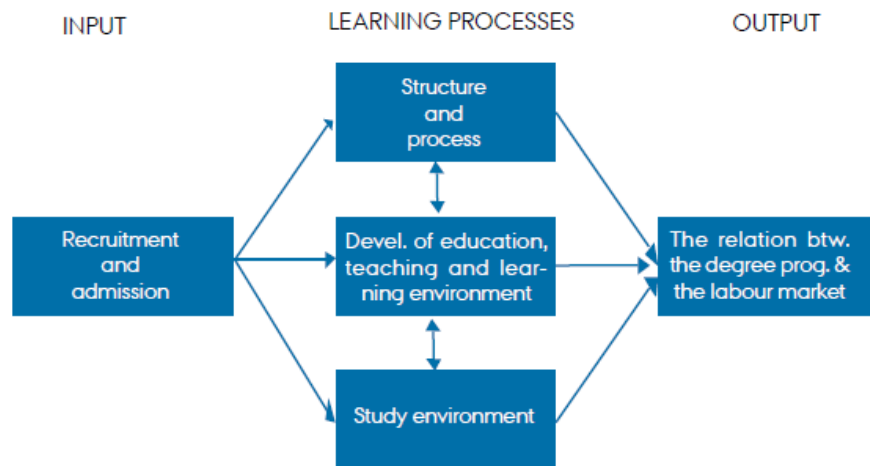
- Files placed in a shared folder
- Few administrative staff members
- User-friendly interface

Fundamental principles in the system:

- Benchmark
- Development over time
- Flexibility in layout








INDICATORS AND AU'S QUALITY ASSURANCE POLICY

Indicator	Sub-policy
1a. First-year drop-out rate BA 1b. Drop-out rates following the prescribed study period + 1 year MA	1, 2
2. Students' earned ECTS per semester (avg.)	2, 3, 4
3. Scheduled lessons per semester (avg.)	3
4. Teaching evaluation	2, 3, 4
5a. Study environment: academic well-being 5b. Study environment: welcoming fellow students	1, 4
6a. Proportion of teaching by researchers (VIP/DVIP ratio) 6b. Knowledge base - non-research-based study programmes	2, 3
7. Full degree-students' relative progression	1, 2, 4
8. Unemployment levels 4.-7. quarters after graduation	5



DATA PACKAGE 2016:

Bachelor's Degree Programme in Laws

Jura, bachelor			
Indicator (No.):	Indicator (text):	Current key figure	Status
1a	First-year drop-out rate BA (%)	16,1	
2	Students' earned ECTS per semester (avg.)	29,2	
3	Scheduled lessons per semester (avg.)	192	
4	Teaching evaluation	Local	Local
5a	Study environment: academic well-being (%)	70%	
5b	Study environment: welcoming fellow students (%)	75%	
6a	Proportion of teaching by researchers (VIP/ DVIP ratio)	1,1	
7	Full-degree students' relative progression	21,8	

[Textbox – ability to add comments]

DATA PACKAGE 2016:

Bachelor's Degree Programme in Laws - *continued*

Indicator 2: The students' progression - ave. earned ECTS per semester

(The indicator is calculated on the most recent years (highlighted in light blue).)

AU - threshold values:

25 ECTS eller mere i gnst. pr. semester	🟢
15-24 ECTS i gnst. pr. semester	🟡
< 15 ECTS i gnst. pr. semester	🔴

Threshold values to indicate quality level

Administrative unit: Jura, bachelor

	Type of degree programme	Average ECTS per semester	Number	Indicator (AU defined)
Jura, bachelor		29,2	1.202	🟢
FAC BSS	bachelor	29	6.904	
AU	bachelor	28	15.561	

Possibility to benchmark with faculty and university values

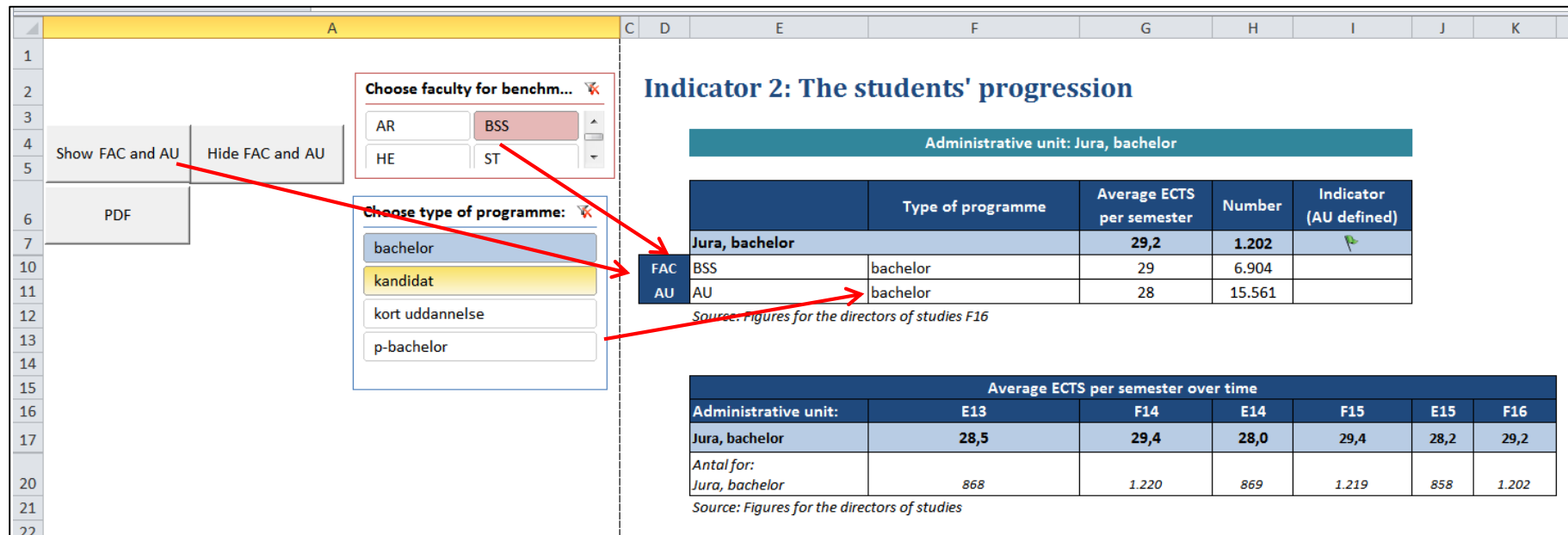
Development over time

Source: Figures for the directors of studies F16

Average ECTS per semester over time						
Administrative unit:	E13	F14	E14	F15	E15	F16
Jura, bachelor	28,5	29,4	28,0	29,4	28,2	29,2
Antal for:						
Jura, bachelor	868	1.220	869	1.219	858	1.202

Source: Figures for the directors of studies

"THE ENGINE": THE DATABASE



SUPPLEMENTARY KEY FIGURES IN THE DATA PACKAGE

- Basic key figures (applications, number of students admitted, enrolled, graduated etc.)
- Completion (completed within the prescribed study period and completed within the prescribed study period + 1 year) and more key figures about drop out rates
- Exam statistics
- Central results from AU's Employment Survey

AGGREGATED AND DETAILED EXAM STATISTICS

Administrativ unit: Erhvervsøkonomi, bachelor

The following exam type(s) is selected: ordinær og reeksamen

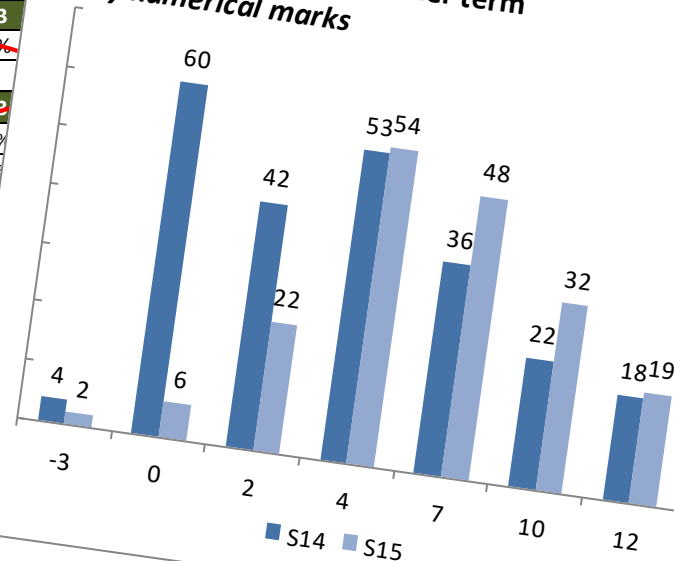
Termin	Pass rates (All grades awarded)	Average marks (Only numerical marks)	Number of marks in total (n)
V15-16	73%	5,7	316
S15	80%	6,2	219
V14-15	62%	4,0	213
S14	61%	4,1	281

Figures for the directors of studies (Exam statistics)

Business Data Collection	V15-16
Business Economics	V15-16
Business Empirical Research Methods	S15
Business Strategy / Decisions and Strategic Interactions	S15
Financial Markets	V15-16
Management and Financial Accounting	V15-16
Micro 1	V15-16
Organizational behavior	V15-16
Project Management	S15
Scientific Methods	S15
Business Mathematics / Principles of Business Empirical Research Methods	V15-16
Microeconomic Analysis of Markets, Organizations, and Behavior	S15

Marks passed

Distribution of marks summer term
- only numerical marks



(n) S14 = 235

(n) S15 = 183

ANALYTICAL MODULE

Access to raw data:

- Study progression
- Exam statistics
- Graduate employment survey (short version)
- Data structured by year of admission (drop-out, enrolled or graduated)



Target group: The study administration at the faculty in their supportive role

Purpose: Getting deeper knowledge about indicators and supplementary key figures

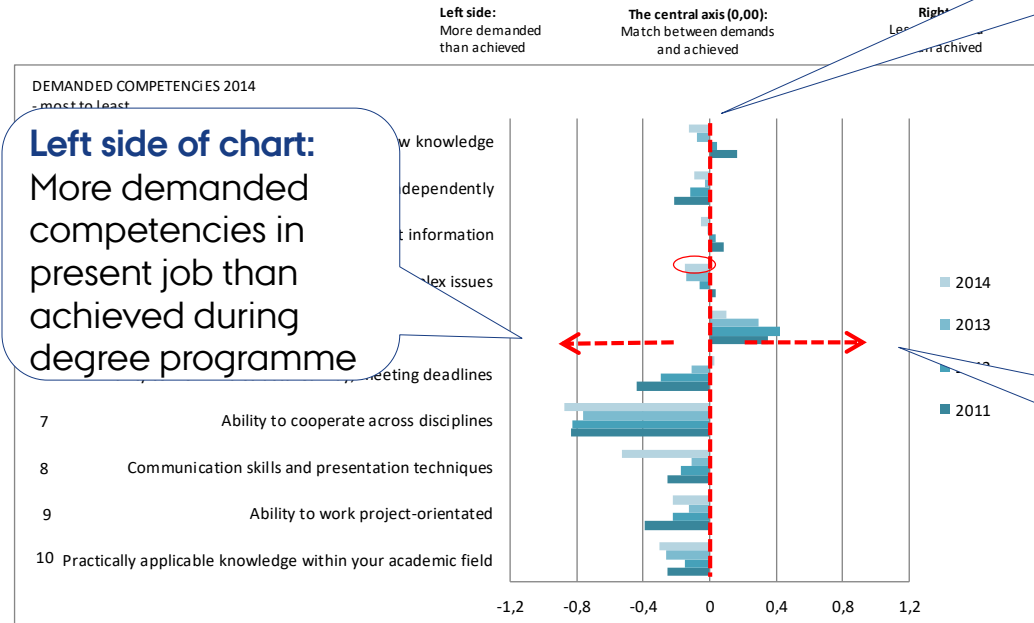
User-friendly interface: dynamical with predefined analytical options combined with the possibility to create own relations between variables

AU'S EMPLOYMENT SURVEY – QUALITY AND COMPETENCE PROFILE

Central axis:

Perfect match between
demanded and
achieved competencies

MSc programme in Biology - Type of graduates: 1 year and 5 year



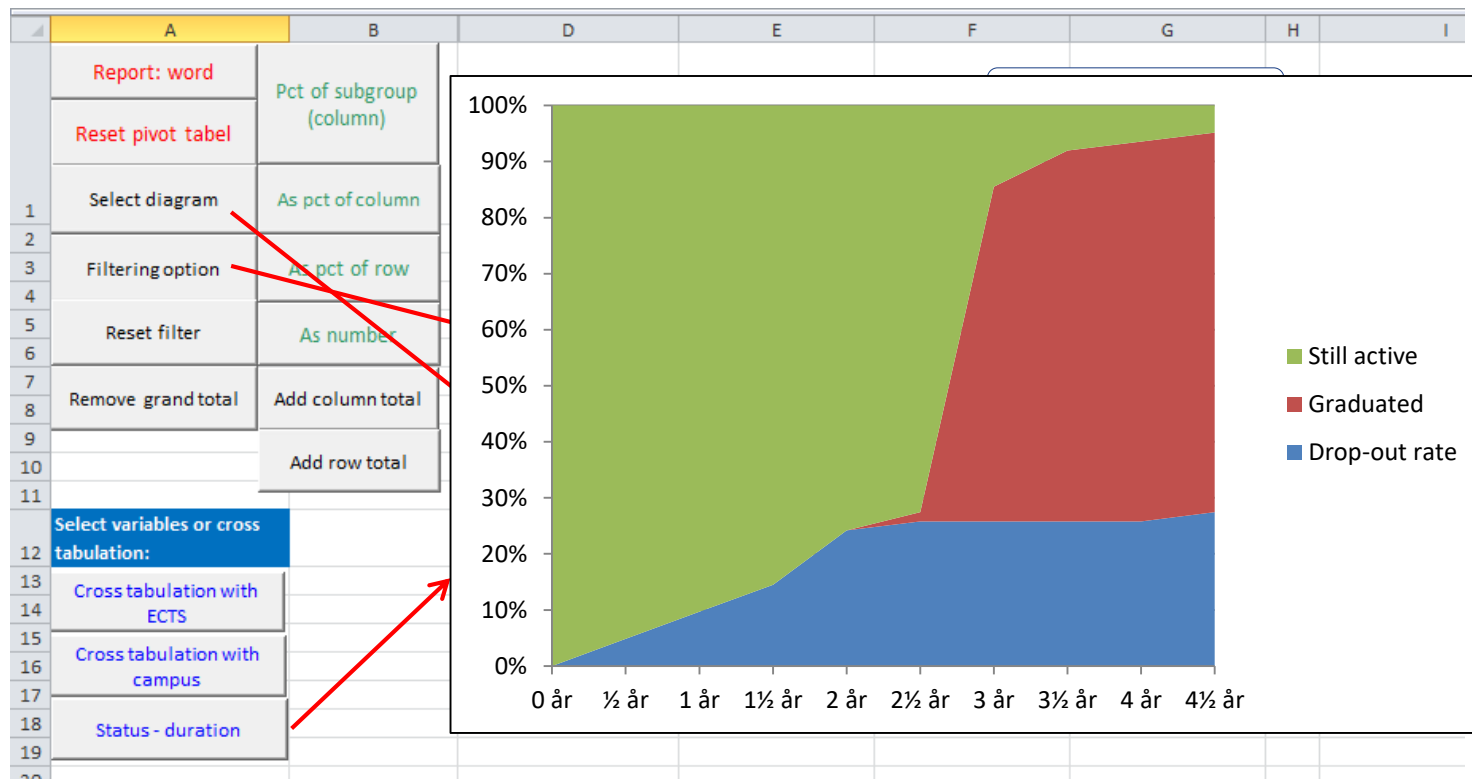
The quality and competence profile:

Perception between
achieved competencies
during the degree
programme and demanded
competencies in present job

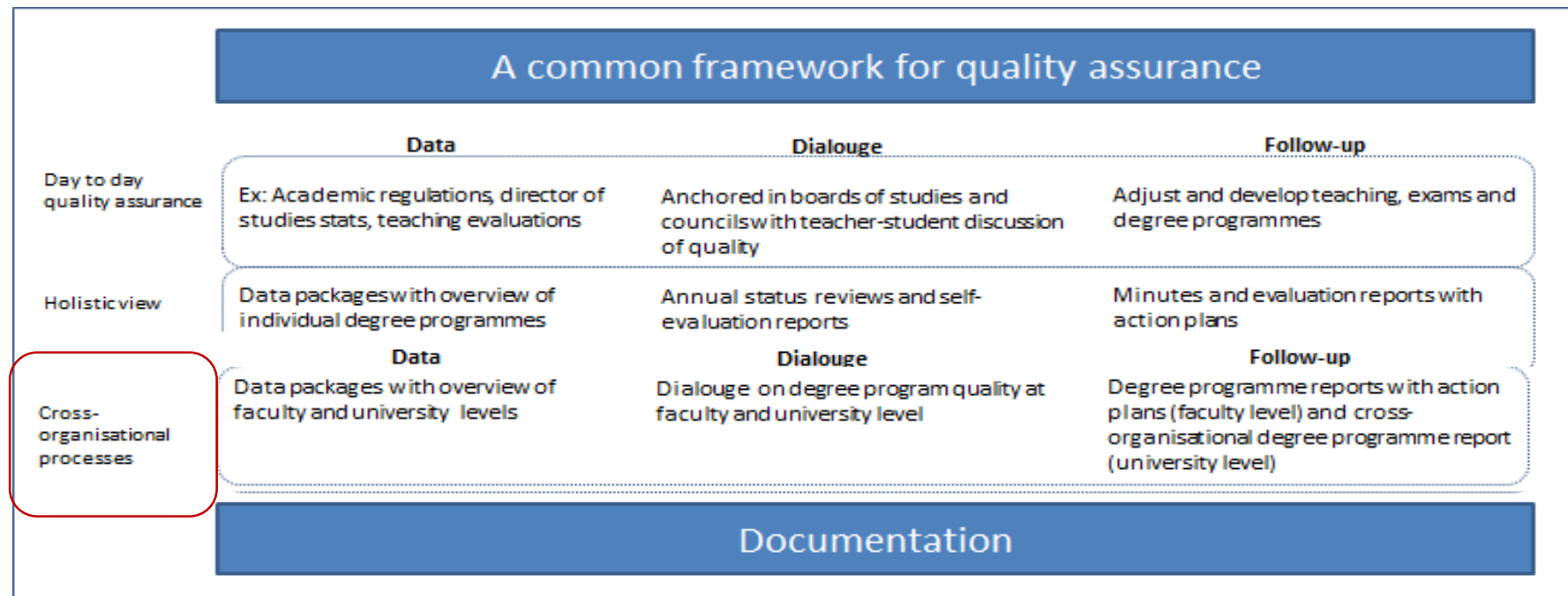
AU's employment survey:

Gives a general picture of the
employment situation for
graduates, who have
graduated either 1 or 5 years
ago.

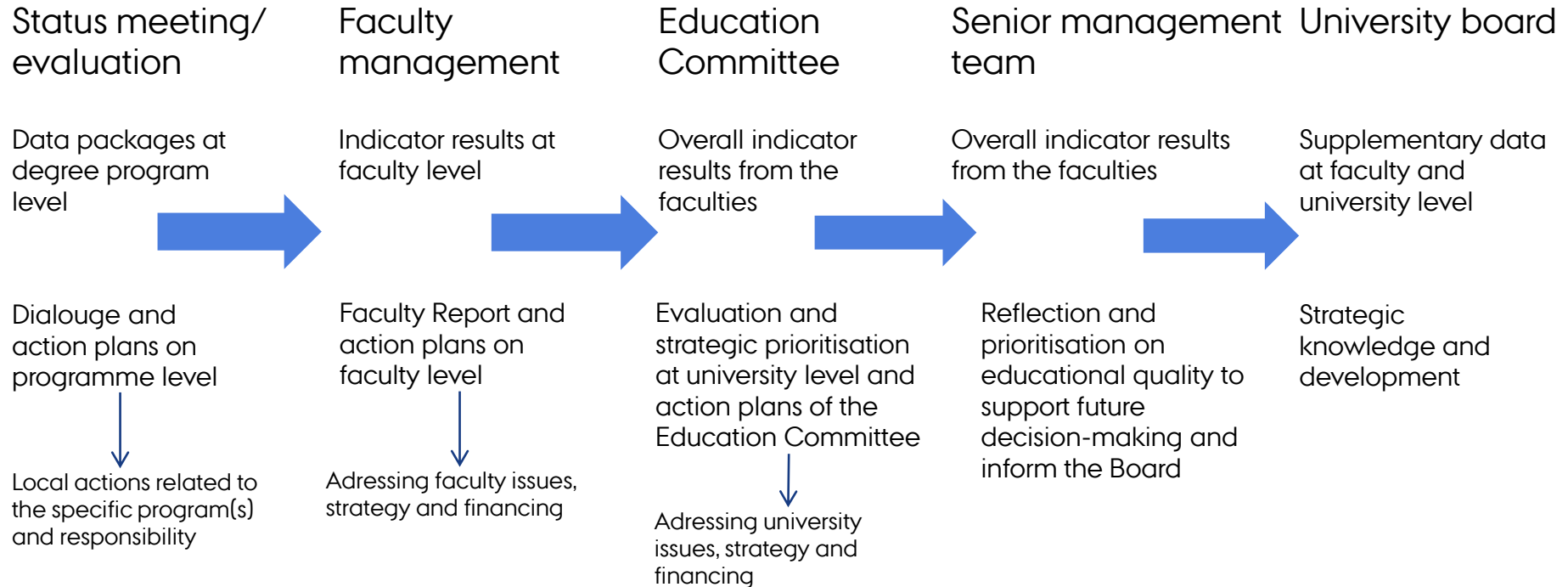
DATA SET - YEAR OF ADMISSION



LEVEL 3: CROSS-ORGANISATIONAL PROCESSES



FLOW PROCESSES AT PROGRAMME, FACULTY AND UNIVERSITY LEVEL



DATA PACKAGES AND INDICATOR MODELS

Aggregated data
from faculties

	Indicators	First year dropout rate BA	Students average ECTS pr. semester	Average lectures pr. week	Evaluation	Study environment – academic level	Study environment – social wellbeing	Research coverage	Full degree-studerendes relative progression	Unemployment rate	
FAC	Educations	1a	2	3	4	5a	5b	6a	7	8	Niveau
ST	Agrobiology, bachelor										BA
ST	Agrobiology, master										MA
ST	Astronomy, master										MA
ST	Bioinformatics, master										MA
ST	Biology, bachelor										BA
ST	Biology, master										MA
ST	Computer science, bachelor										BA
ST	Computer science, master										MA
ST	Physics, bachelor										BA
ST	Physics, master										MA
ST	Geophysics, master										MA
ST	Geophysics, master										MA
ST	Geoscience, bachelor										BA

ISSUES, FURTHER DEVELOPMENT AND ON-GOING DISCUSSIONS

- Monitoring research-basing
- Balancing central University framework and local implementation and interpretation
- Involving students in the right processes and decisions
- Increasing response rates in surveys and course evaluation
- Balancing data monitoring (quantitative data) and dialogue (qualitative data and knowledge)
- Resources (both economy and faculty staff hours)
- Evaluating semesters (structure and quality between course and programme evaluations)
- Balancing external and internal preferences and demands in relation to quality assurance
- BI-system version 2.0 - operational security more standardised reports vs flexibility

THANK YOU FOR LISTENING

Questions, Comments or anything in between?



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STUDY PROGRESSION/EXAM STATISTICS

- Statistics and raw data on students' progression and the just completed exam period are published
- Every half year (March / October) – internal data
- Target group: study directors of degree programs
- Detailed or aggregated information
- Up-to-date data
- Included in the annual data packages where there is a monthly view on the degree programs

