# Algorithms indicator scores

# Performance of incoming/outgoing students

For each student:

- Calculate the number of days in the program (End.Date-Start.Date)
- student score = CreditsCompleted/(0.20\*DaysInProgram)
- when
- score>1score=1

#### Per university:

 Score = 100\*average(Student.score)

#### Support and facilities at the host institution

Combine student and trainee-data

#### Support-score:

- per entry: mean of non-missing support-questions (range 1-5)
- missing if no questions answered
- per university: mean of the per-entry-score

#### Facilities:

- per entry: mean of non-missing facilities-questions (range 1-5)
- missing if no questions answered
- per university: mean of per-entry-score

#### Total S&F-score:

- Now there is a support-score and a facilities-score per university
  Weight =
- 1 if there is a support and a facilities score for that university
   0.8 if there is only a support-score
- Total.Score = (0.80.SupScore+0.20.FacScore)/Weight where FacScore is set to 0 if it is missing Total.Score.Rescaled = 100\*(Total.Score-1)/4

#### Academic quality

#### per entry:

- Combine students and trainee questions on quality
- Score = mean of the non-missing answers (range 1-5)

# per university

- Score = average entry.score within the university
- Score.rescaled =
- 100\*(Score.univ-1)/4

#### Rankings

To calculate the rankings indicator:

- 1. Only institutions that are ranked in top 500 of at least two of the three rankings (ARWU, QS and THE) will be taken into account
- 2. Calculate the average ranking based on the ranking positions
- 3. Calculate the relative score for each institution, the highest ranked institution will get the highest score
  - a. List from best to worst outcome. For equal outcomes, it doesn't matter (are handled later on)
  - b. Assign a score to each position: best position, highest score, worst position 0
  - c. The institutions with the same outcome, get the average score of this group of institutions

Only the most recent upload by the super admin should be taken into account

#### **Course catalogue information**

Answers on the question "Was the receiving institution's course catalogue..." are taken into account, the 4 possible answers are not weighed equally:

- up to date: + 4
- available in time: +3
- complete: +2
- published on the website:+1

Summing these, results in a score between 0 and 10

For the total score:

- · Calculate the score per entry
- Per university: score = average score within the university
- Rescale:
- score.rescaled=10\*score.univ

## Exchange of mobility documents

To calculate the total score, 3 subscores will be combined. The first two are calculated at student/trainee-level, the third at institution level.

#### Per student

Subscore 1:

Subscore 2:

- Combines two questions:
  - Q1: Was your Learning Agreement signed by all parties before the start of the mobility?
     if the answer is "Yes, all parties signed it before the start": score: 1

    - if the answer is "The learning agreement was never signed" score: 0
  - Q2: If no, who signed after the start of your mobility period?
    - if the answer on this question is: The receiving enterprise/organisation did : score: 0
    - for other answering options (several answers are possible): score: 1
  - º Q4: Did you receive or do you expect to receive the Transcript of Records from the receiving institution within five weeks after publication /proclamation of your results at the receiving institution?
  - Subscore 2 =
    - 1 if answer = Yes
    - 0 if answer = No

To calculate the total score, 3 subscores will be combined. The first two are calculated at student/trainee-level, the third at institution level.

#### Per university

Subscore 1:

· average of the non-missing scores

#### Subscore 2:

· average of the non-missing scores

Subscore 3: (data= one entry for each university that has submitted a grading table, this information is uploaded in the tool)

- 1 if they submitted a grading table
- 0 otherwise (if the university does not show up in the grading table-dataset)

#### Final score:

Total score = 100\*(0.25\*Subscore1+0.25\*Subscore2+0.5\*Subscore3)

# Mobility rate

Score 1

- · Combine the student and the staff-data, combine the in and the out data for all academic years of the selection of academic years
- Calculate the total number of exchanged people per university
- Calculate the percentage of those people moving in/all (range 0-100)

# Score 1 = 100-2\*|50-perc.in|

#### Score 2

Combine the student and the staff-data for each of the academic years of the selection Was there any mobility in academic year 1 of the selection: yes (100) or no (0) Was there any mobility in academic year 2 of the selection (if data is available): yes (100) or no (0) Was there any mobility in academic year 3 of the selection (if data is available) yes (100) or no (0)

Score 2 = total score/number of academic years

Indicator score = (score 1 + score 2)/2

#### Involvement

The score is calculated based on the number of broad (BF) and narrow (NF) isced fields at a particular institution.

- e.g. 0110: Education, not further defined
- 0111: Education science
- 0210: Arts. not further defined
- 0211: Audio-visual techniques and media production
- 0212: Fashion, interior and industrial design
- 0213: Fine arts
- 0214: Handicrafts
- 0610: Information and Communication Technologies (ICTs) --> 3 BF (0100;0200;0600)
- The Logic is:
  - Each extra BF is worth the same surplus in score
  - Within each value BF, extra NF deserve the same surplus in score
  - To avoid institutions with score 0, a distinction is made for BF=1
  - --> Note: you can minB to be 1 (in practice, it will be 1 almost all the time I think)

# Calculate:

- maxB = max number of Broad field
- minB = min number of Broad field
- minN(BF) = for each value of 'number of BF', see the minimal value of NF
  maxN(BF) = for each value of 'number of BF', see the maximum value of NF

Now, the score for an institution with b BF and n NF is:

```
1. if maxB > 1
  Basis = (b-1)*100/(maxB-1)
  If b=1
  Score = n*100/(maxB-1)/(maxN(1)-minN(1)+2)
  If b>1
  Score = basis + (n-minN(b))*100/(maxB-1)/(maxN(b)-minN(b)+1)
```

- 2. if maxB = 1 (so b= 1 for all institutions) Score = n\*100/maxN

# **Educational collaboration**

1) Subscore projects:

- · Rank on number of projects
- Convert ranking in score 0 to 100 (0 = lowest position, 100 = highest position)
- Institution without projects get 0 score

2) Subscore joint programmes:

- Each institution on the list gets 50
- To calculate the other 50: 50 x number of graduats/total number of graduates for all programmes

Final score: subscore projects + subscore joint programmes

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