

Our first MOOC experience:

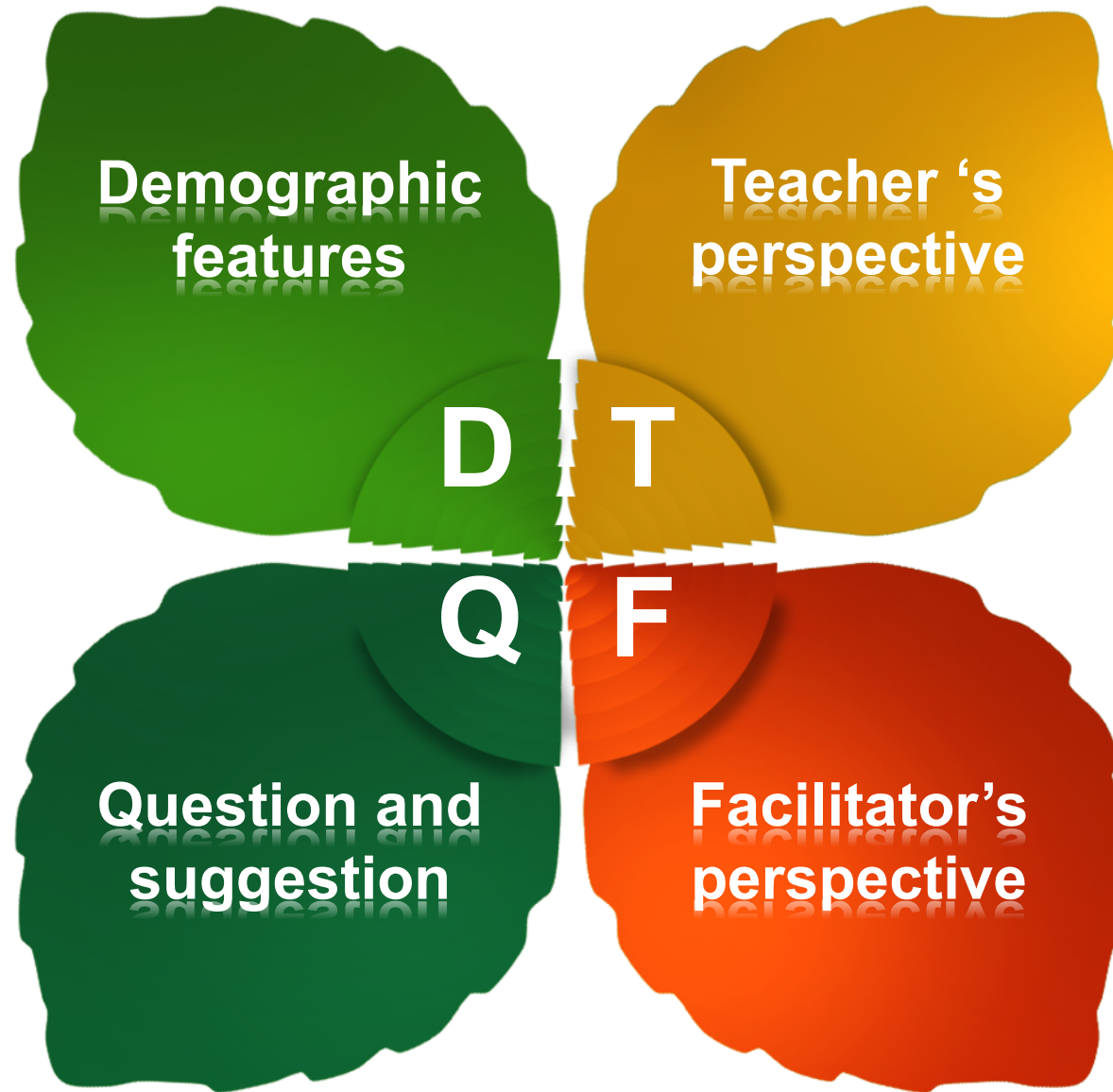
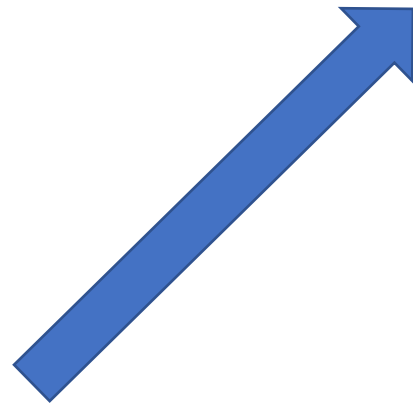
- as teacher and former University Vice Rector
- as facilitator and PhD student



Jan Cornelis (Emeritus Professor; Pro Vice Rector –VUB; Consultant Professor – NPU in Xi'an)

Dinh Ngoc Bich Khuyen (PhD student at VUB; Msc at VUB; BSc from HNUE in Hanoi)

Contents of the presentation



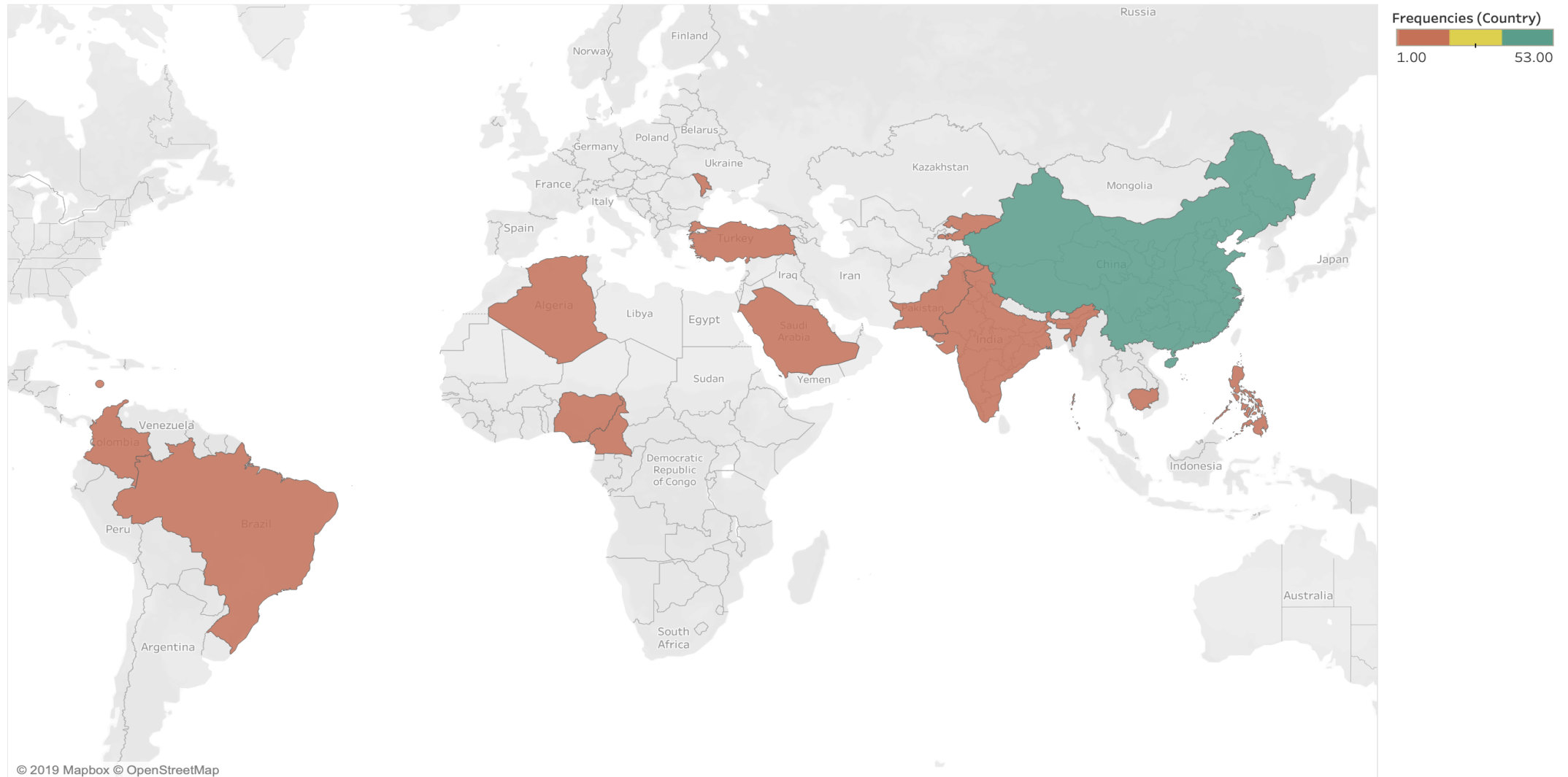
- Role
- Organizational choice
- Analyses of the chosen approach
- Personal satisfaction
- How to run Module 2 next time?

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I. Demographic information of participants

Participation by countries

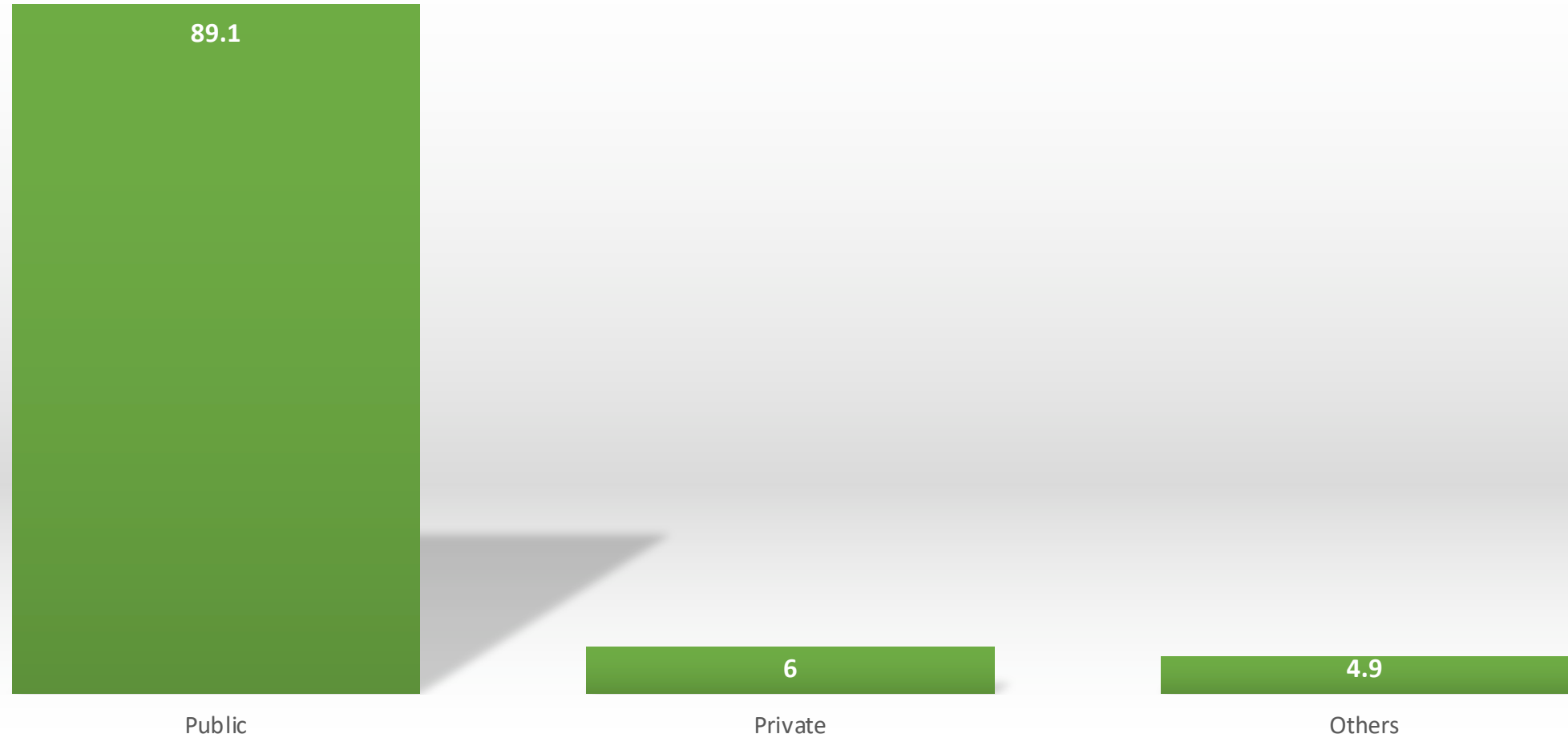
Distribution of participants' countries



Map based on Longitude (generated) and Latitude (generated). Color shows sum of Frequencies (Country). Details are shown for Country 1.

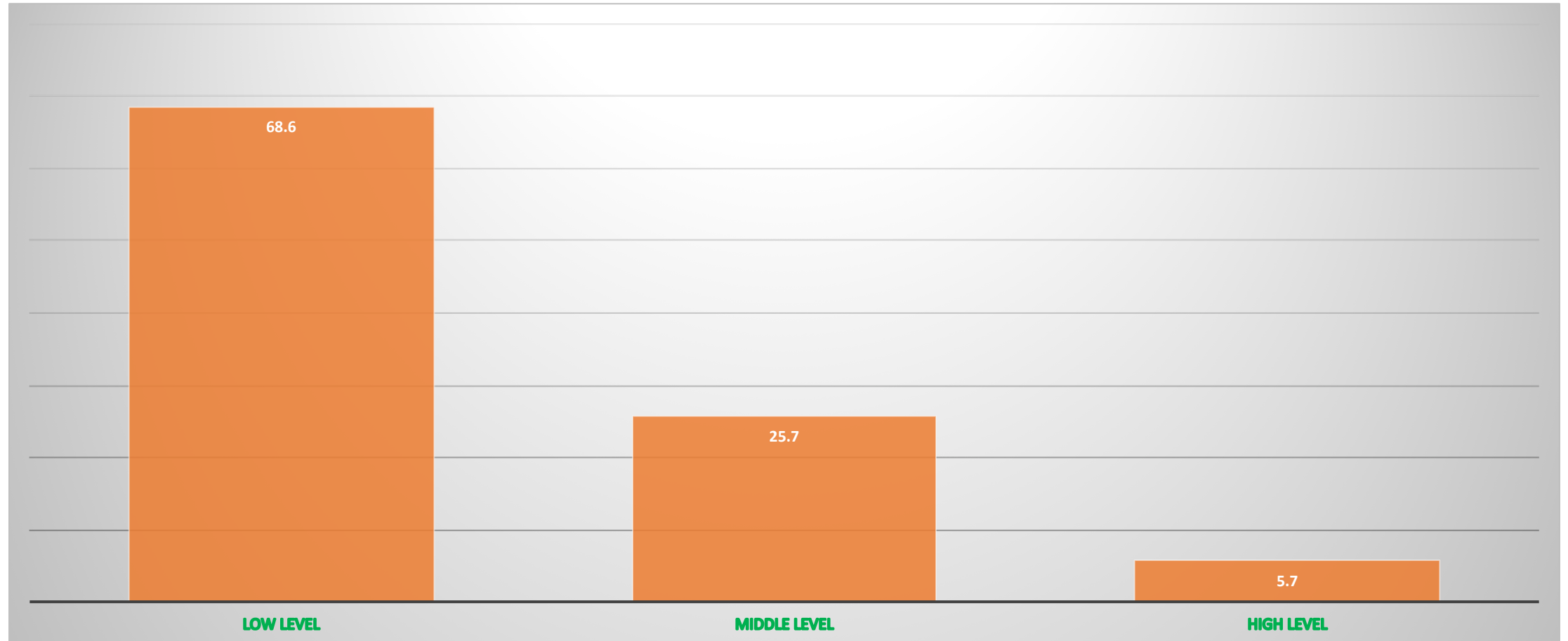
I. Demographic information of participants

Participation by type of institutions

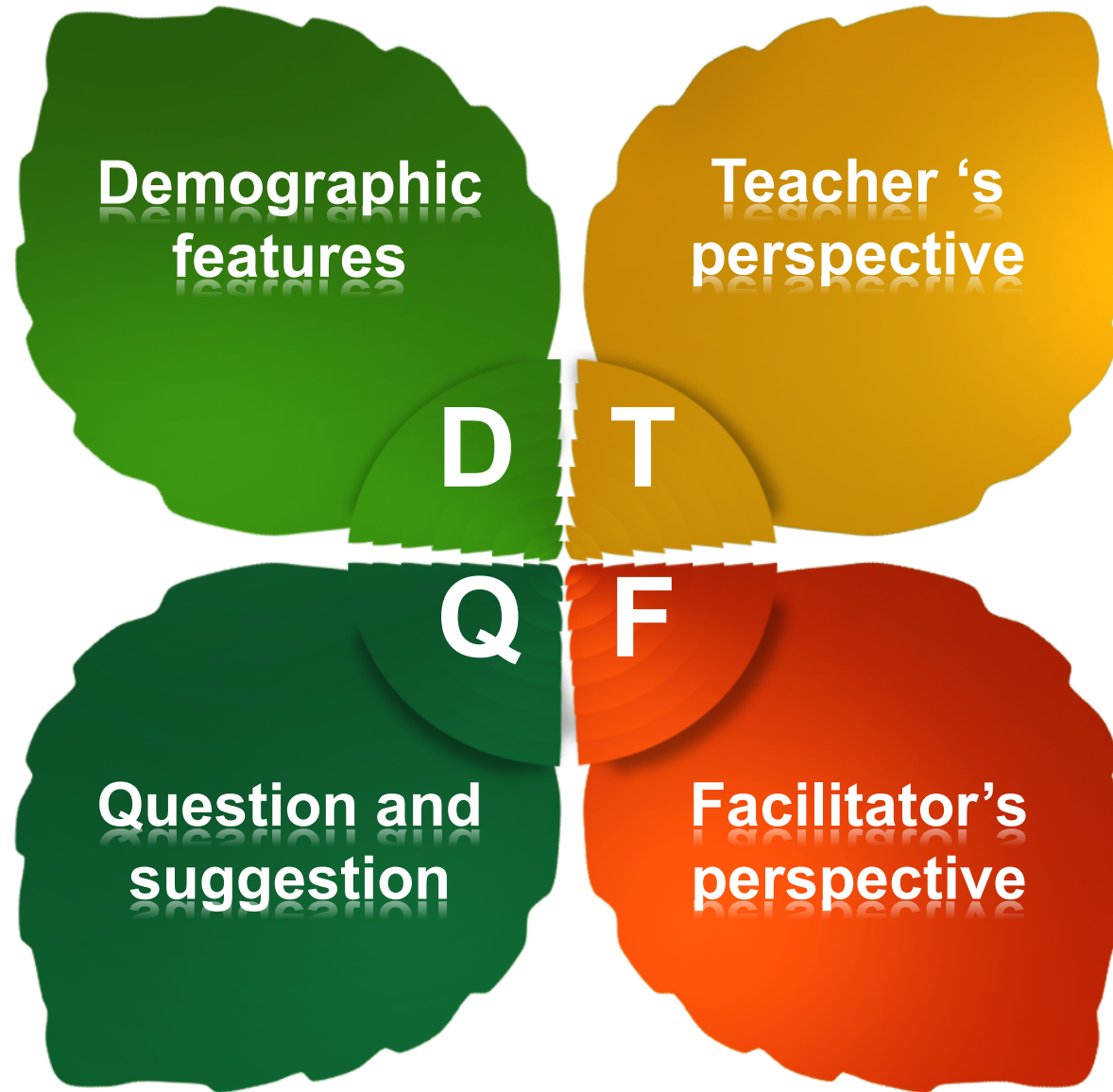


I. Demographic information of participants

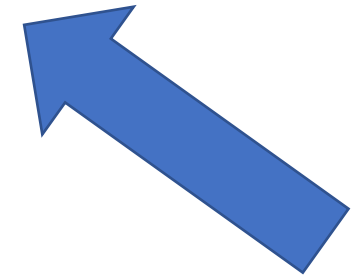
Participation by academic position (English version only)



Contents of the presentation



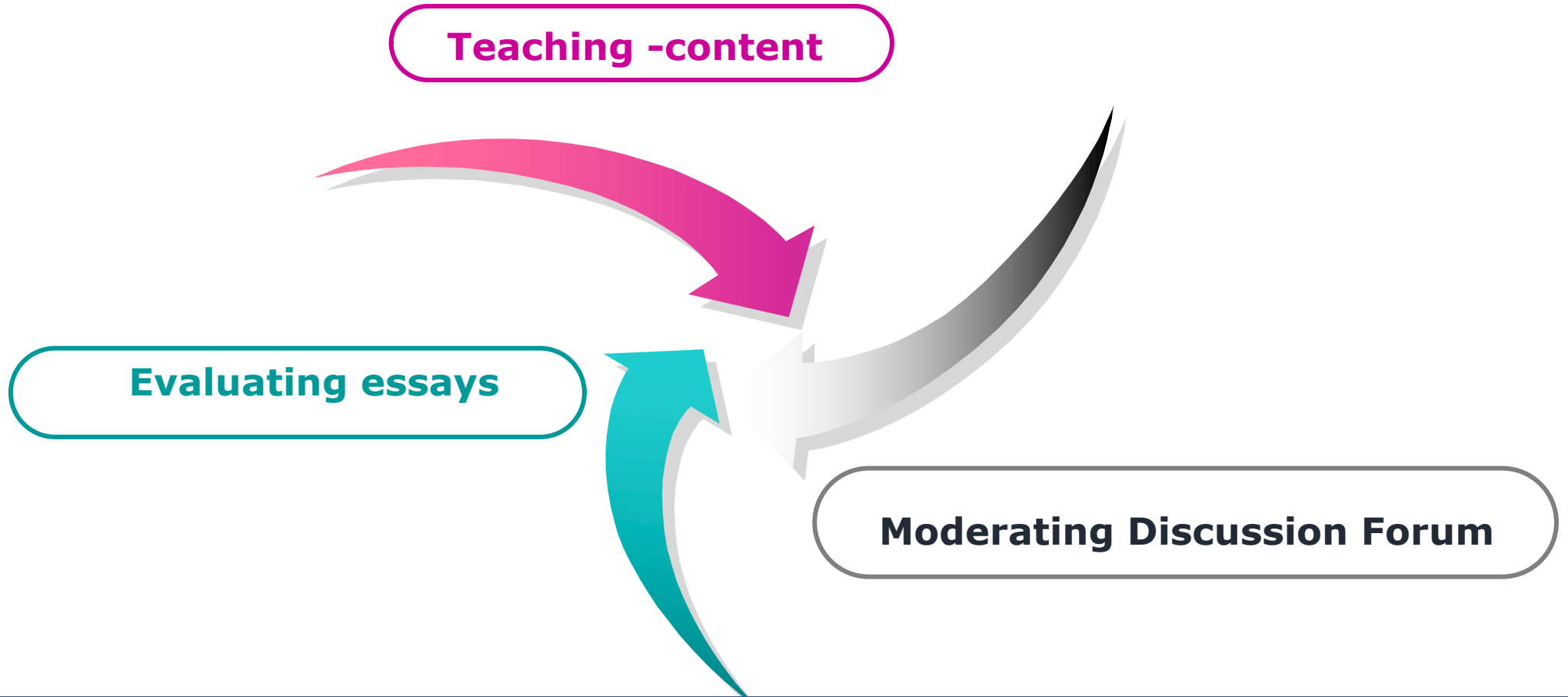
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- Role
- Analyses of the chosen approach
- How to run Module 2 next time?

II. Teacher's perspective

Teacher role



II. Teacher's perspectives

Organizational choices

1. Content structure & scoring
2. Essays: topic of choice
3. Live session
4. Peer review

II. Teacher's perspectives

Organizational choices

1. Content structure & scoring

- The Module initially consists of two parts:

- + Discussion Module: where participants discuss, exchange knowledge, share experience.
- + Essay: participants need to submit an assignment (individually, maximum 10 pages)

- Scoring:

+ Forum: 20 % of the total score on the Forum

+ Essay: 80 % of the total score. Details:

- Essay selected for discussion in live session + invitation as guest lecturer in next MOOC edition (score 7-8)
- Essay selected for discussion in live session or publication on the course website as background opinion/material (score 5-7)
- Essay with sufficient quality (score 4-5)
- Essay below threshold (score < 4)

II. Teacher's perspectives

Organizational choices

2. Essays: Topic of choice

Essay 0 (Standard): Please **provide two successful examples** of your university supporting research valorisation? In which domain? What do you think are the factors that contributed to the success of the research valorisation? Which governance factors affect the implementation of these success stories? If so, could you explain the impeding factors? Make a small SWOT analysis of the governance structure in RIV at your university. Propose a generic governance structure that could improve the support of the type of cases that you have analyzed.

Essay 1: Research, Innovation & valorization (RIV): how to embed RIV in the university governance structure? Motivate your choices. Does RIV need special attention in dedicated structures within the university governance model or can **RIV be treated as an inherent feature embedded in the global university ecosystem?**

Essay 2: I have described my opinion on providing separate university governance support for fundamental research and for innovation & valorization (I called them horizontals), because they are different in nature and require different management skills, although both are often connected on the work floor in what I called the (thematic) verticals. **Can you propose alternative governance structures that could overcome the drawbacks of my proposed partitioning?** Motivate them and provide a SWOT analysis of the different models...

Essay 3: What is your proposal to support **multi- and transdisciplinary**? Structural embedding? Programs for funding? Evaluation systems and recognition in HR systems? The essay can have **the global governance as a subject or can also be dedicated to a more specialized governance aspect in multidisciplinary** Research or Innovation & Valorization (e.g. research and innovation platforms, management of the collaboration with multiple stakeholders, living labs, thematic cases from which generic conclusions can be drawn, a.o.b. ...)

II. Teacher's perspectives

Organizational choices

2. Essays: Topic of choice

Essay 4: Should university governance structures be extended to the field of investments in new spin off ventures based on university R&D with an expected return on investment? How would you implement and run a university VC fund? What are the ideal goals, benefits that you would pursue. Do you see points of interest and care that I have not been addressed in Module 2 submodule 2.4 (Part 4) and the background material provided with submodule 2.1 and submodule 2.4?

Essay 5: All subjects of the Guest lectures can be extended by own insights, cases or viewpoints to the extent that they are treated from university governance point of view.

Essay 6: Topics that I did not deal with in the course (please get in contact with me prior to choosing such a topic). Hereafter I provide a non-exhaustive list of possible topics of interest:

II. Teacher's perspectives

Organizational choices

3. *Live session*

Live session aimed at discussing interesting topics. Several participants will be selected to be a key note speaker in the Live session. They could be invited to be a Guest Lecture in the next LEAD MOOC edition.

4. *Peer review*

Initially, each participant will be assigned to evaluate 1 or 2 essays of the module.

II. Teacher's perspectives

Analysis of the chosen approach

1. Content structure and scoring

The module consists of 3 part: discussion module (scoring: 5/10), Assignment 2.8 part 1 (5/10), assignment 2.8 part 2 (10/10).

2. Essays: Topic of choice: no change

3. Live session: was not implemented

4. Peer review: technical problem

Time spent for evaluation: 7 days

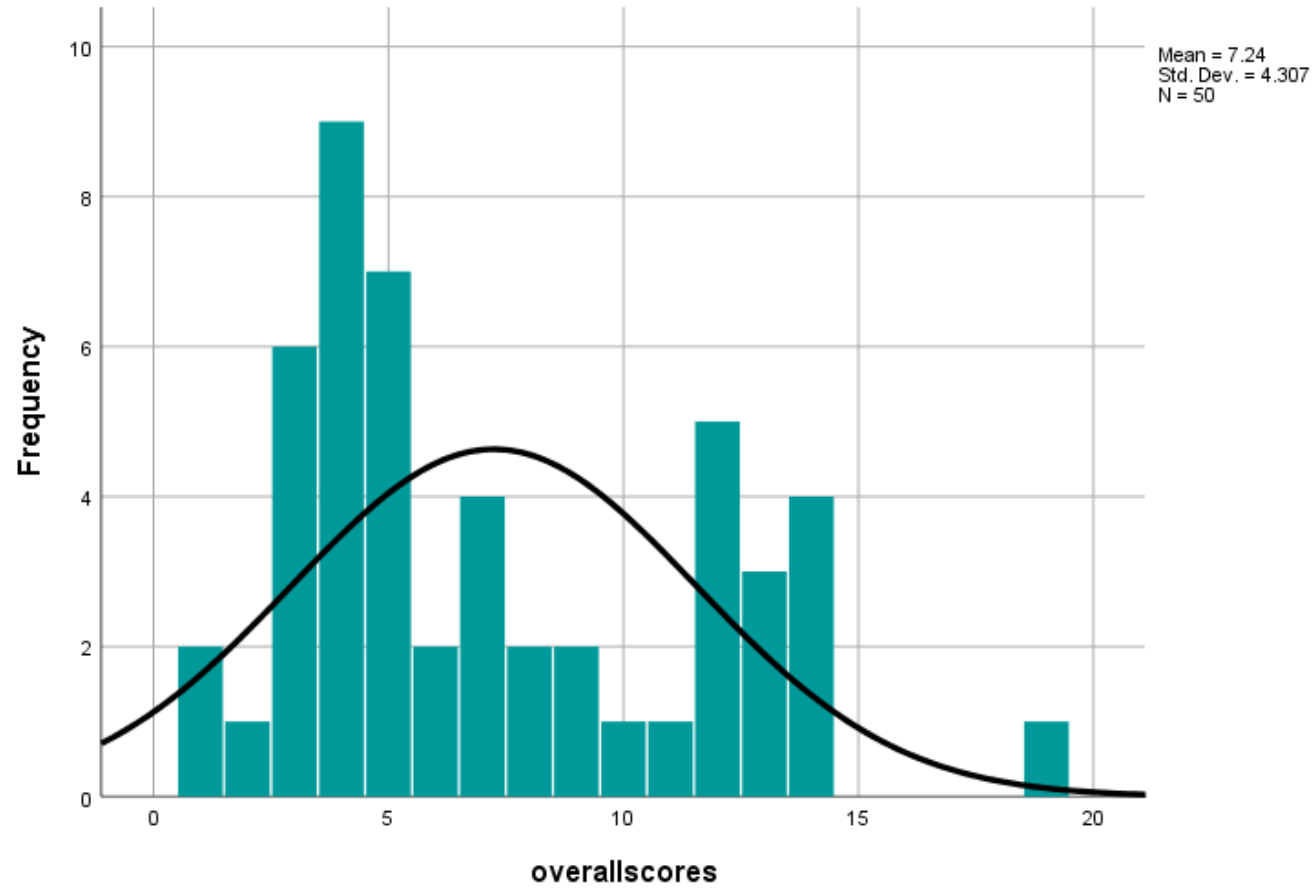
II. Teacher's perspectives

Analysis of the chosen approach

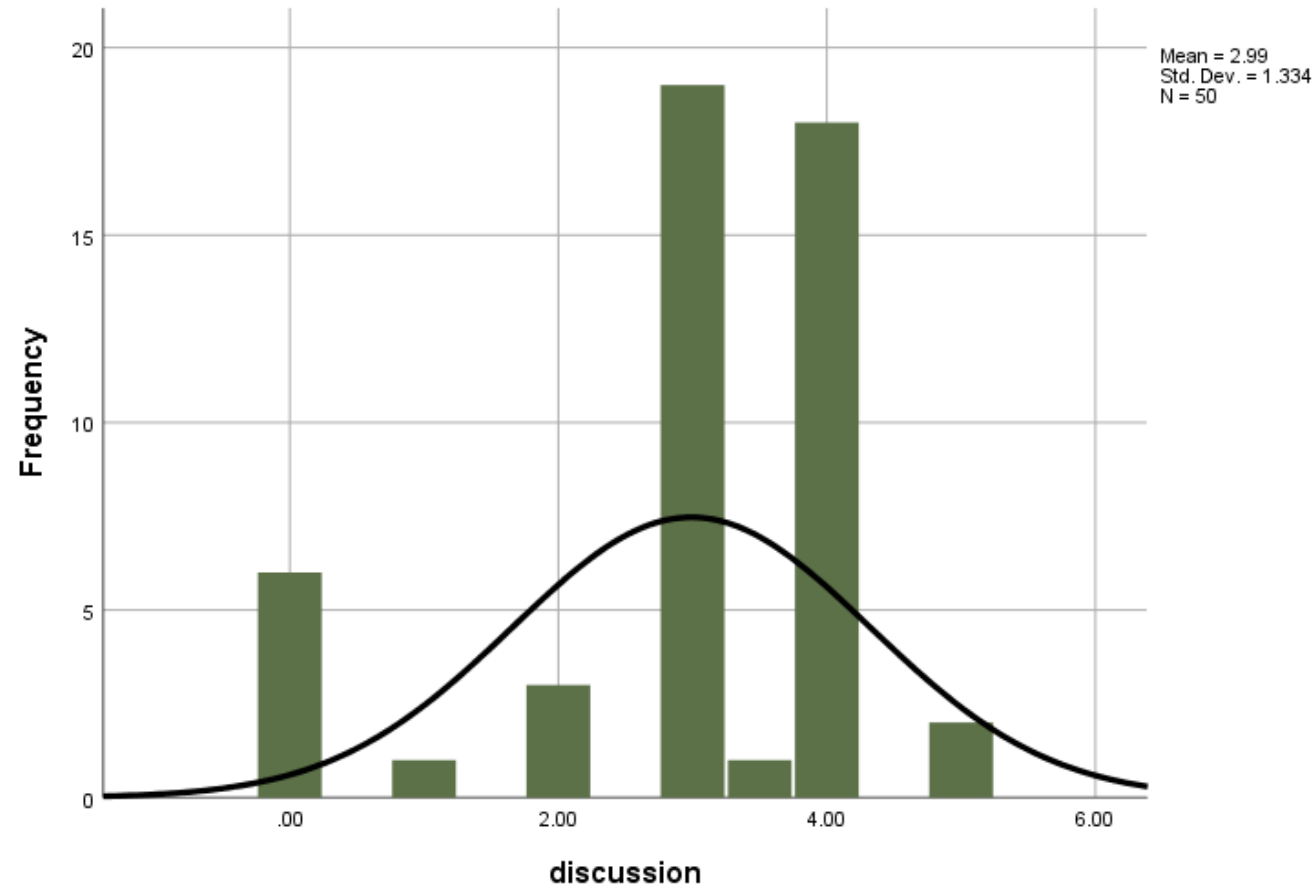
*** Results:**

- How did participants choose the essay?
 - + education is primary pre-occupation – how can research and community services improve education quality – only a few tackle this from governance perspective
 - + Essay 0 most popular, but treated as ongoing work besides education and incomplete
 - + Thematic choices: e.g. transdisciplinary (Essay 3), HASS (Essay 4), Development aid (Essay 6), guest lectures (Essay 6), publication behavior
 - + Government interference,
- Level is lower than expected
- Results based on participants' scores (descriptive features)

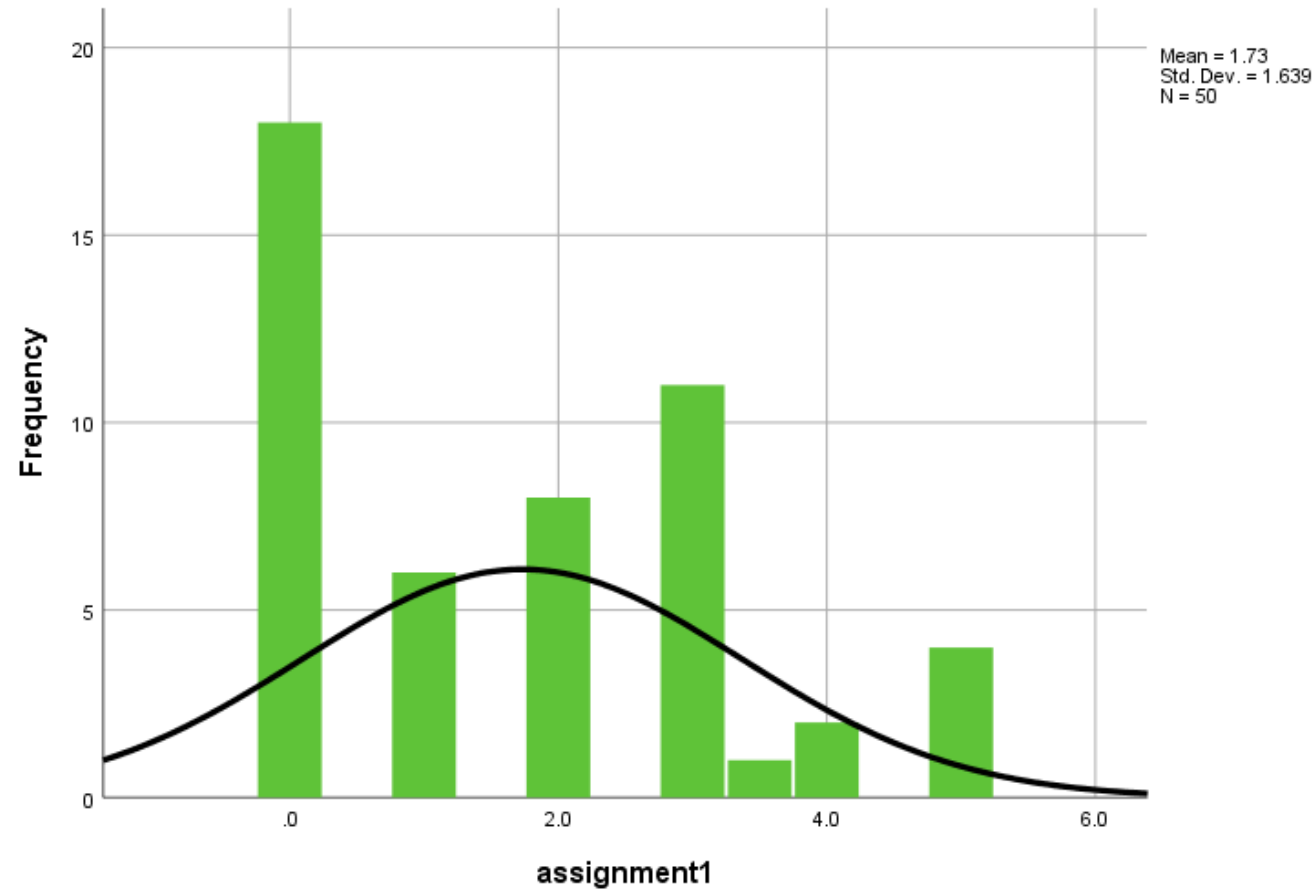
Distribution of participants' overall scores



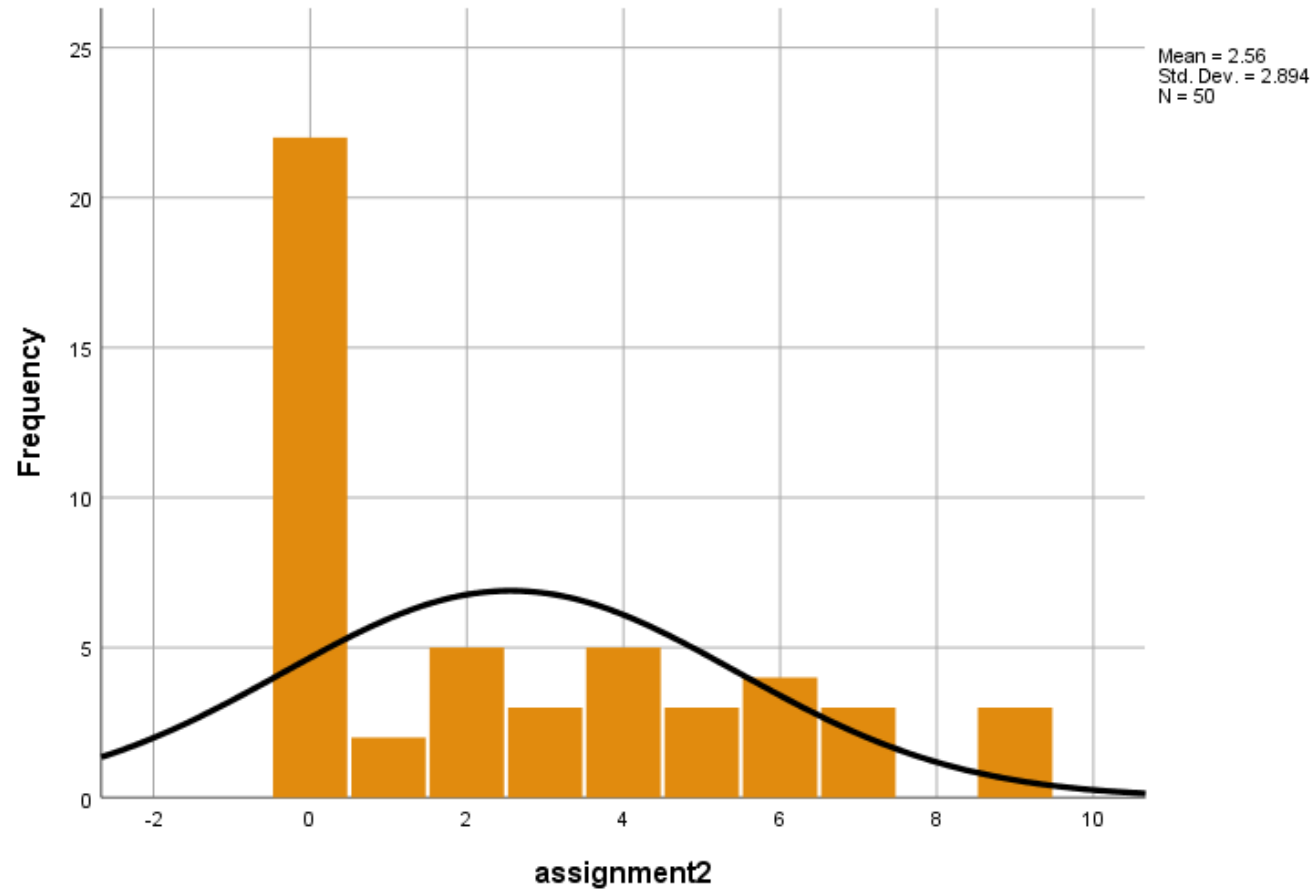
Distribution of participants' scores for discussion forum 2.7



Distribution of participants' scores for Assignment 2.8 part 1



Distribution of participants' scores for Assignment 2.8 part 2



II. Teacher's perspectives

Personal satisfaction

- Sharing of expertise acquired in university career
- Structuring of best practices and analyzing my failures
- Generalizing the governance and leadership actions by abstraction
- All university levels incorporated in a multilevel governance framework
- Potential for incremental improvement and additional view points
- Perspective of further exploration of the China Europe aspect
- Lively forum but disappointing essays and limited commitment of the participants towards successful termination of the module, which requires abstraction of their own work and structural thinking as well as creativity, out-of-the-box reasoning and personal effort

II. Teacher's perspectives

How to run Module 2 next time?

1. **Structure design:** Remove Assignment 2.8 part 1
2. **Deadline for the Module:** should be clear from the start (announcement). + The Forum will be closed early because we use results in the forum to give advice for the essay.
+ The deadline for the essay should be before the end of the course.
3. **Scoring:** score in the Forum should be based on the content of the messages and the student's active participation.
4. **Self criticism:** HASS deserves some extra lectures → extension – suggestions welcome
5. **Number of participants:** maximum 50.
6. **Financing models and their implications is not yet taken up** → extension – suggestions welcome

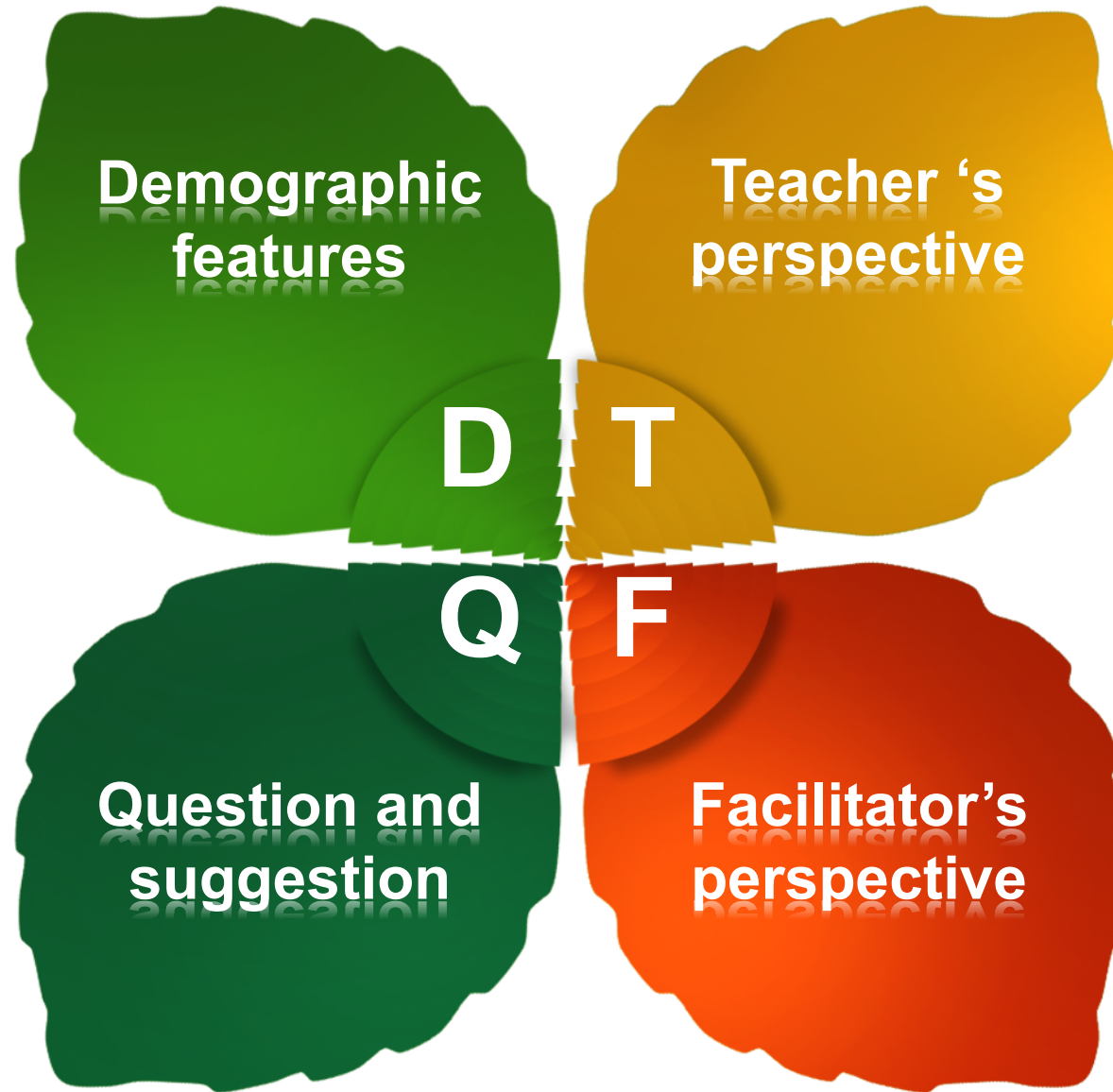
II. Teacher's perspectives

How to run Module 2 next time?

6. The CANVAS system:

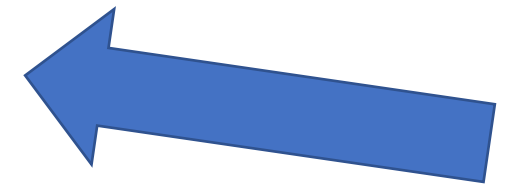
- + Peer review and inbox: exclusively used by facilitator
- + Participants' profile: contains information of their name, institution, and their academic role.
- + The survey: should come after the gradings and personalized feedback comments from the teacher

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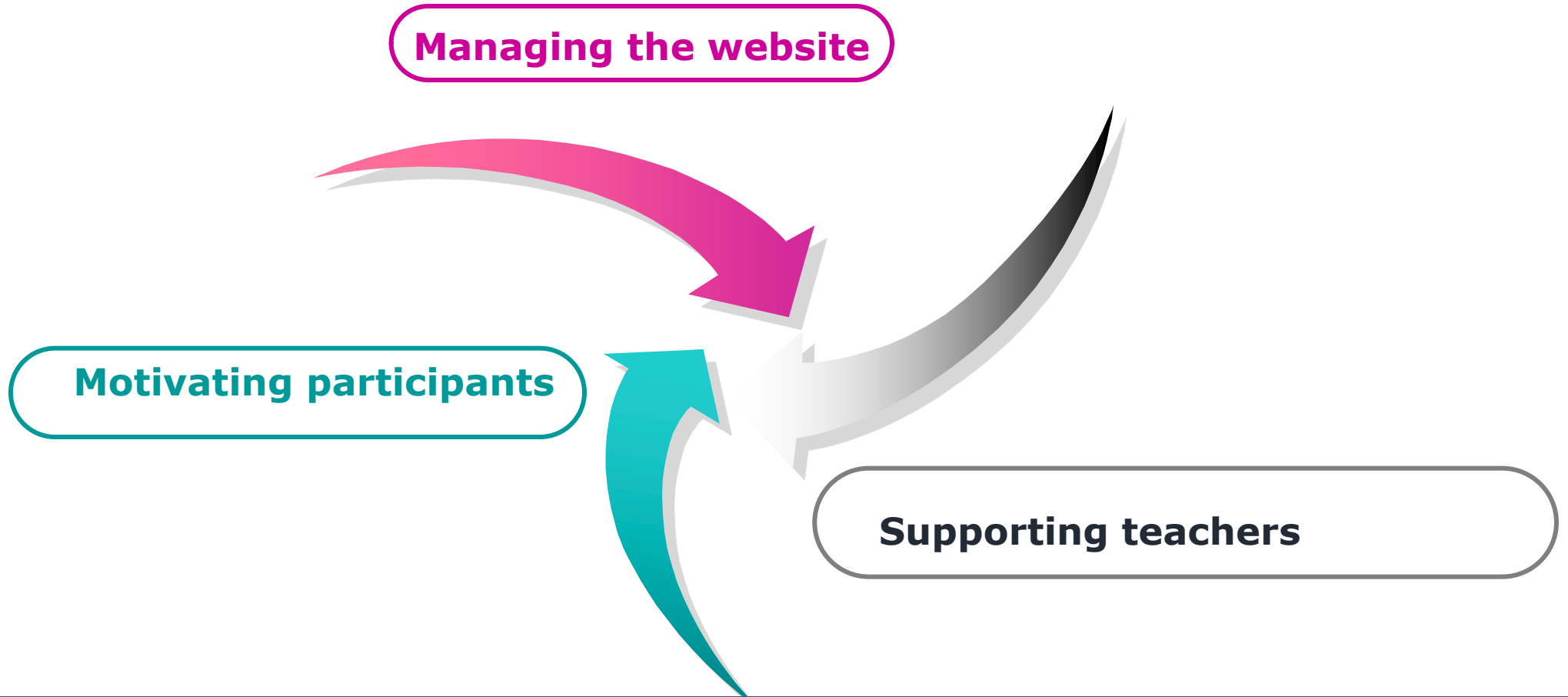
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Module 2 – CONTENT and Strategic reflection

III. Facilitator's perspective

Facilitator role



III. Facilitator's perspectives

Analysis of chosen approach

1. **Managing the website:** technical problem with peer review
2. **Motivating participants:** insufficient time to support (joined the course late)
3. **Time spent for supporting teacher: 10-12 hours for Module 2**

III. Facilitator's perspectives

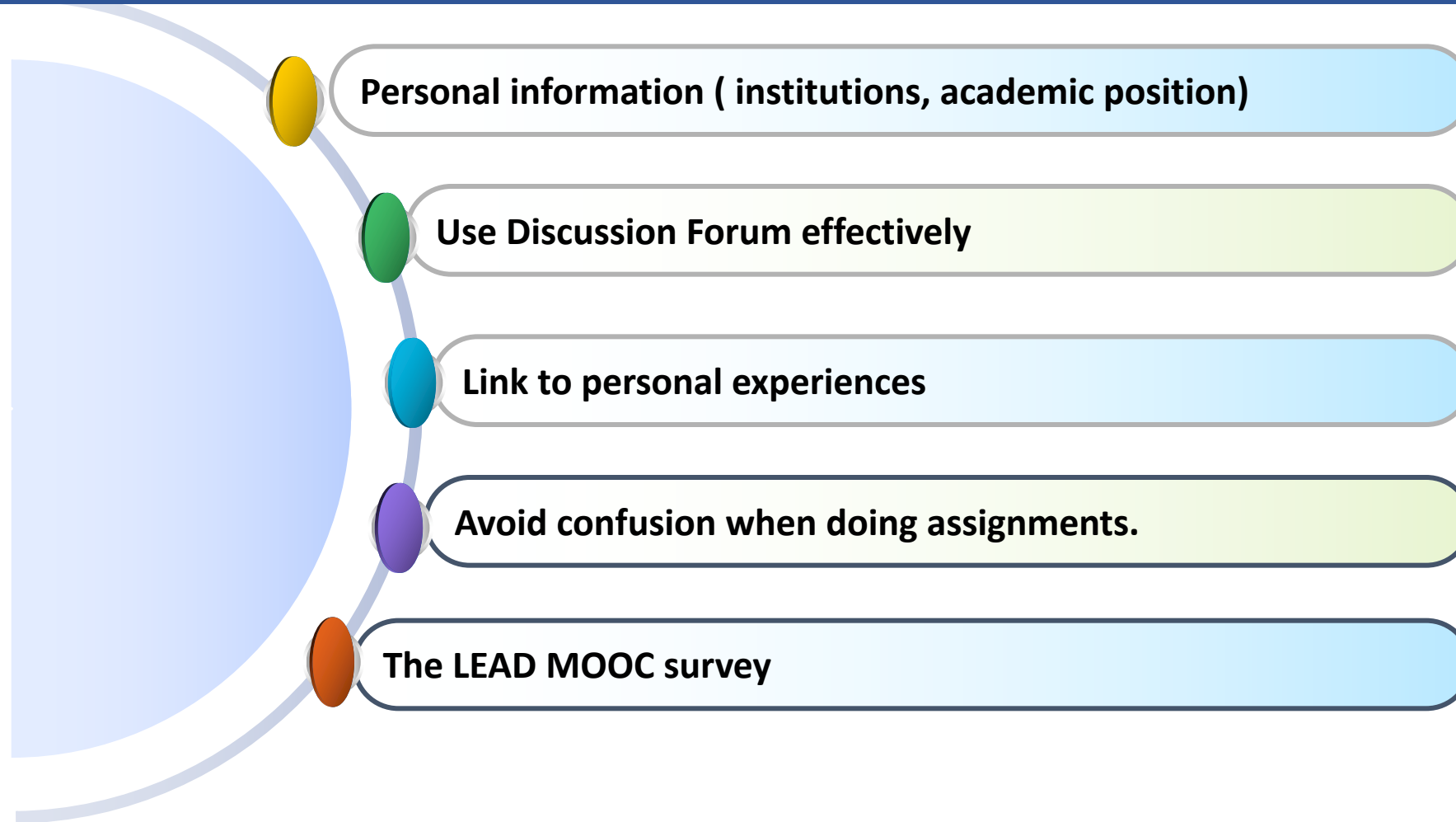
How to run Module 2 next time?

1. Peer review

2. Automatic detection of active participants.

III. Facilitator's perspectives

How to run Module 2 next time?

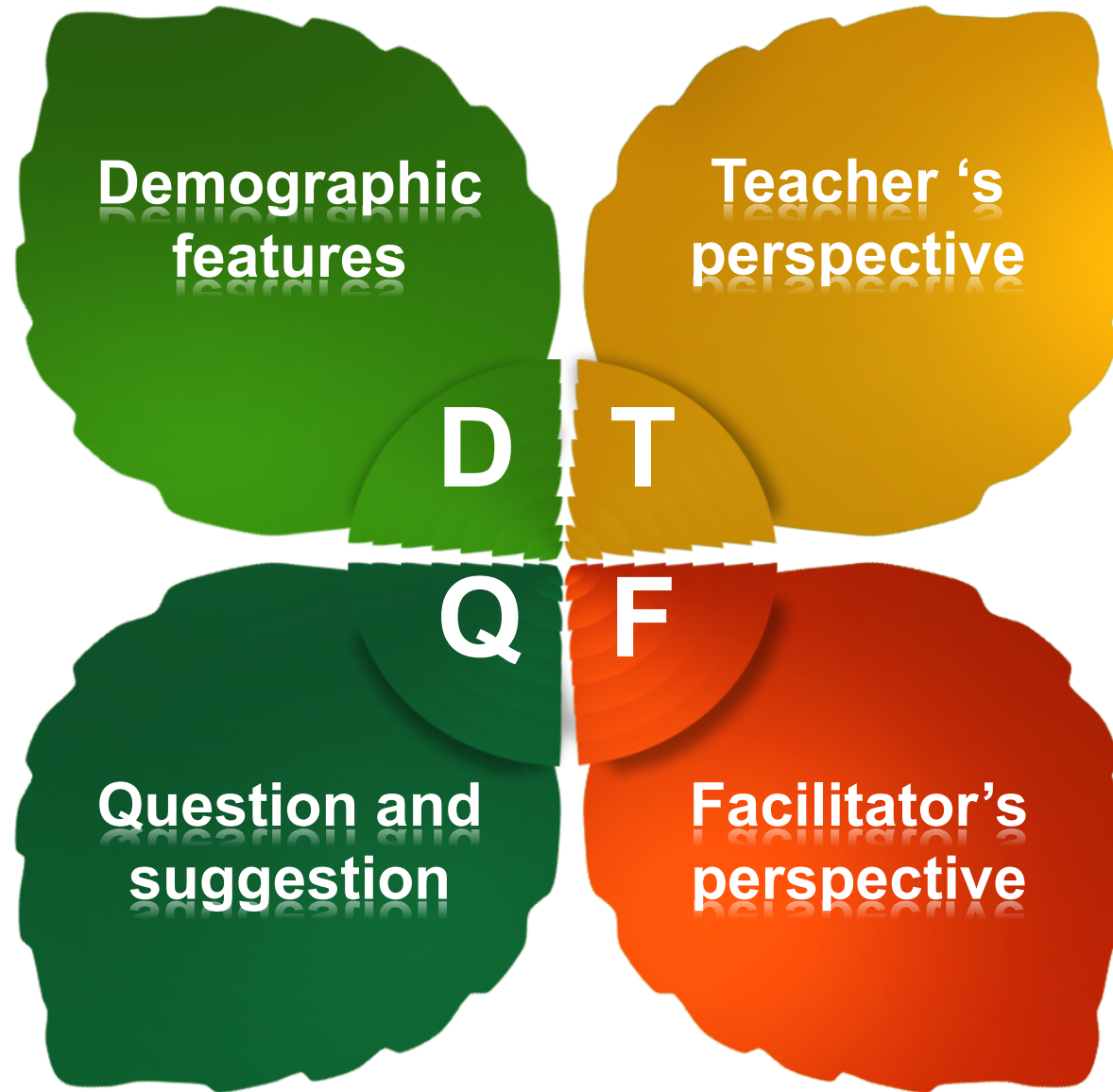


Contents of the presentation

intermezzo



Module 2 – CONTENT and Strategic reflection



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University governance for “research” and “innovation & valorization”

INTRODUCTION: The structure of Module 2



Jan Cornelis (Emeritus Professor)

Pro Vice Rector –VUB

Consultant Professor NPU –Xi'an

Chinese contributions



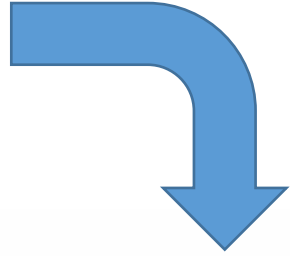
2.5 Innovation & Entrepreneurship: Engine for Regional Economic Development

LEI Xinghui (Tongji University)

2.6 International Cooperation in R&D and Technology Transfer for Universities in New Economic Era

WANG Hua (Kunming University of Science and Technology)

European contributions



2.1 Part 1: Positioning of RIV in the university's governance structure

2.2 Part 2: The global picture on RIV

2.3 Part 3: Research

2.4 Part 4: Innovation and Valorisation

Jan CORNELIS (VUB)

European guest lectures



2.2 Part 2: The global picture on RIV

2.2.1 European Master of Science in Photonics: a case study where education meets research, industry and internationalisation –Heidi OTTEVAERE (VUB)

2.3 Part 3: Research

2.3.1 i-ISO: Dedicated support in applying for EU funding - Philippe WESTBROEK and Anneke GEYZEN (VUB)

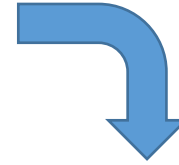
2.4 Part 4: Innovation and Valorisation

2.4.1 Integrating entrepreneurship in academic curricula and Tech Transfer activities - Marc GOLDCHSTEIN (VUB)

2.4.2 Technology transfer from University to Industry - Hugo THIENPONT (VUB)

2.4.3 Interuniversity Seed fund - Marc ZABEAU (Qbic)

Practical



- (1) Questions for clarifications about Parts 1-4 including: off-line answers and FAQ platform.**
 - (2) Make your own list of points of attention concerning one or more of Parts 1-4**
 - (3) University governance is still an art there is no unique best solution for it. If you have other viewpoints, submit your alternative model.**
- (2) and/or (3) will be your entrance ticket to a live session to exchange best practices.**



Connected: ~500 active agreements with 245 partner universities for student exchange and research collaboration at institutional level

Key Features

Research without dogma; Tolerance and diversity; Active pluralism, Open-mindedness, Cosmopolitan Brussels

Rankings



#48/ 100 EU
most innovative
universities



201-300 (ARWU-2016)

Students

~16000

students



Research

- 110 MEuro Res. Budget acquired competitively
- 15 Joint Intern. Research Groups
- 1677 PhDs-10%
- 3 Doctoral Schools
- ~200 Phd diplomas/year

Education

- 2 English Ba: Social Sc.; Business Economics
- 33 English Masters
- 8 English certificate programs
- 7 Double degree Ma
- 3 Doctoral Schools
- Engineering- BRUFACE
- ULB-VUB; TIME; - Erasmus+, specific countries

Innovation knowledge transfer

13.5 mio
REVENUE FROM CONTRACT RESEARCH WITH INDUSTRY AND VALORISATION OF RESEARCH

- ☐ 30 active spin offs
- ☐ 123 patent families
- ☐ 25 staff TTO
- ☐ Fundraising

- 230 Meuro Operational budget
- 8 Faculties
- University Hospital
- 4 Campuses
- Now: Doubling our sq. meter capacity
- Personnel: ~ 6500
- Ass. UAB with Erasmus school of higher education

University governance for “research” and “innovation & valorization”

Part 1: Positioning in the university’s governance structure



Jan Cornelis (Emeritus Professor)

Pro Vice Rector –VUB

Consultant Professor NPU –Xi’an

Part 1: Positioning in the university's governance structure

1. University features and entities: **the building blocks**
2. About **disciplinarily** versus **transdisciplinary**
3. **Structuring** exercises: how to assemble the building blocks - hierarchy
4. Link with **Internationalisation** and Education
4. **Assumptions** for the next lectures
5. **Practicals**

ACADEMIC FEATURES AND ENTITIES

HORIZONTALS

Research
Innovation and valorization (knowledge and technology transfer)
Education
Student affairs
Internationalisation

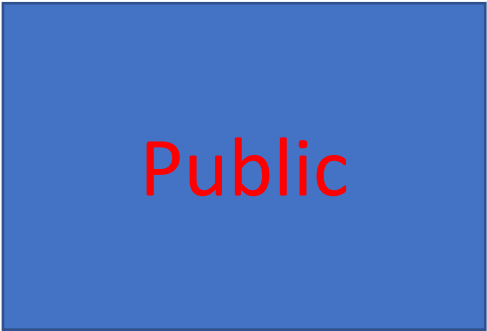
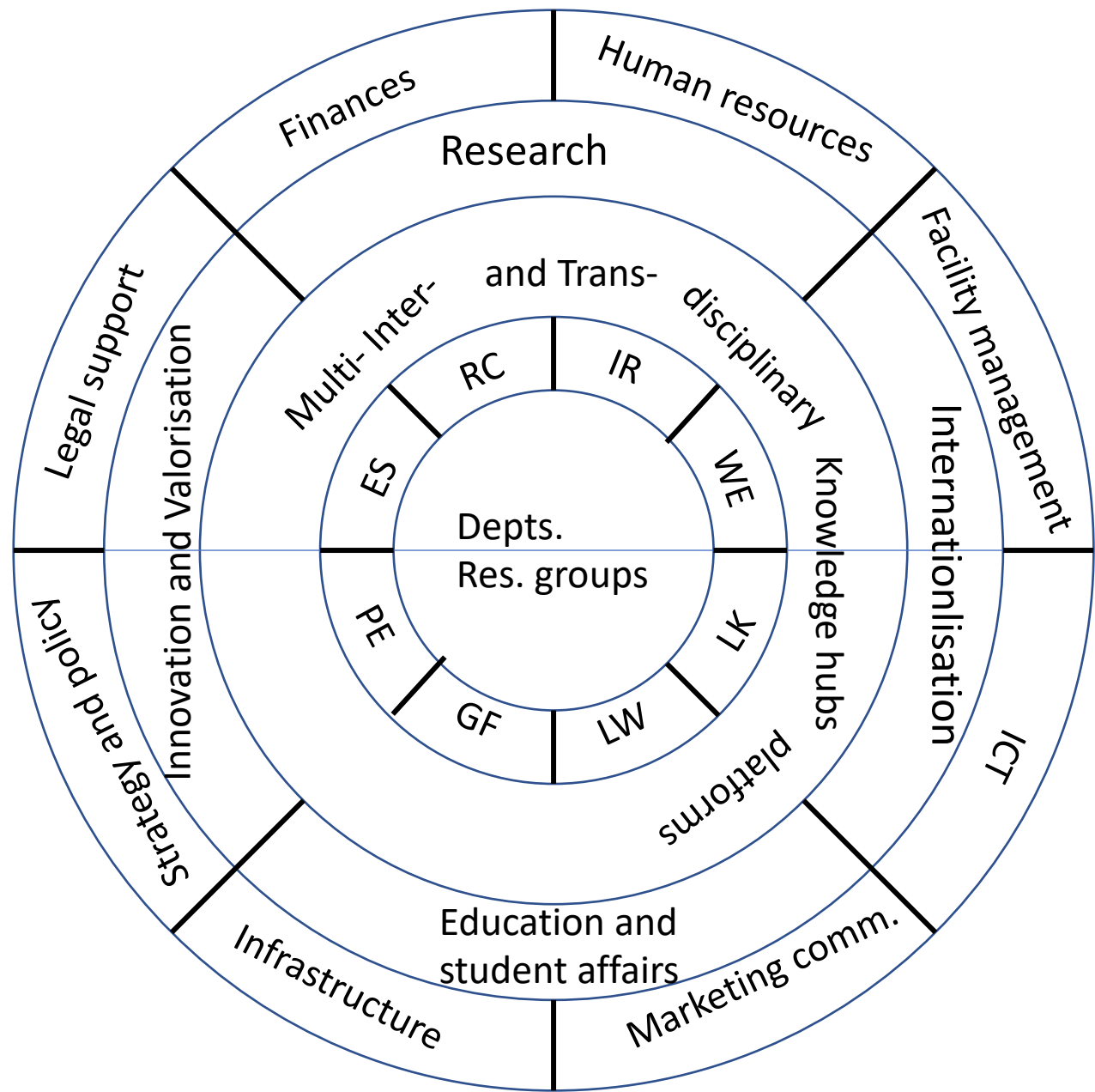
VERTICALS

Research disciplines
Multi-, Inter- and Transdisciplinary research and education
Open innovation

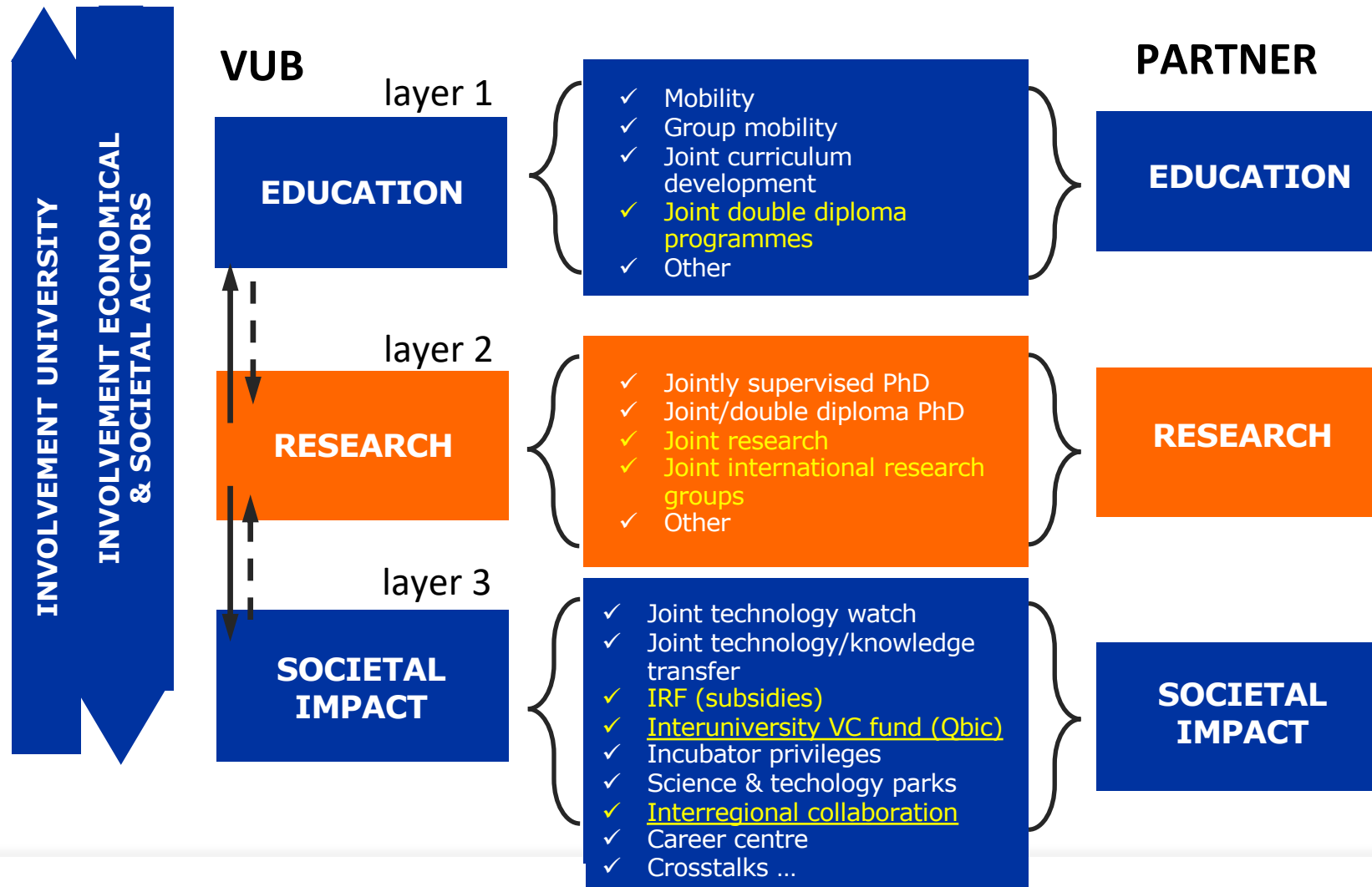
ENTITIES

Central governance including rectorate
Faculties/schools
Departments
Research groups
Individual researchers, PhDs
External stakeholders

Academic Leadership



International Partnerships and sustainability



Underlying assumptions for the next lectures

- Comprehensive University as opposed to Specialized College
- Public
- Modularity and hierarchy to make management tractable
- Research and education based on research (Humboldt) is unique selling point
- Scale: middle-sized
- Urban context
- International vocation
- Free inquiry – humanistic perspective
- Accessible to all
- Finances (output financing based on KPIs),
- Governance history (democratic and participative principles)
- Elected Rector among academic peers
- Embedding of research and innovation policy in central university governance structure
- Strong involvement in societal impact creation

University governance for “Research” and “Innovation & Valorization”

Part 2: The global picture on RIV



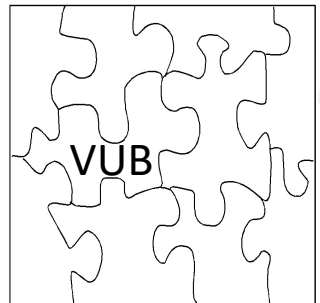
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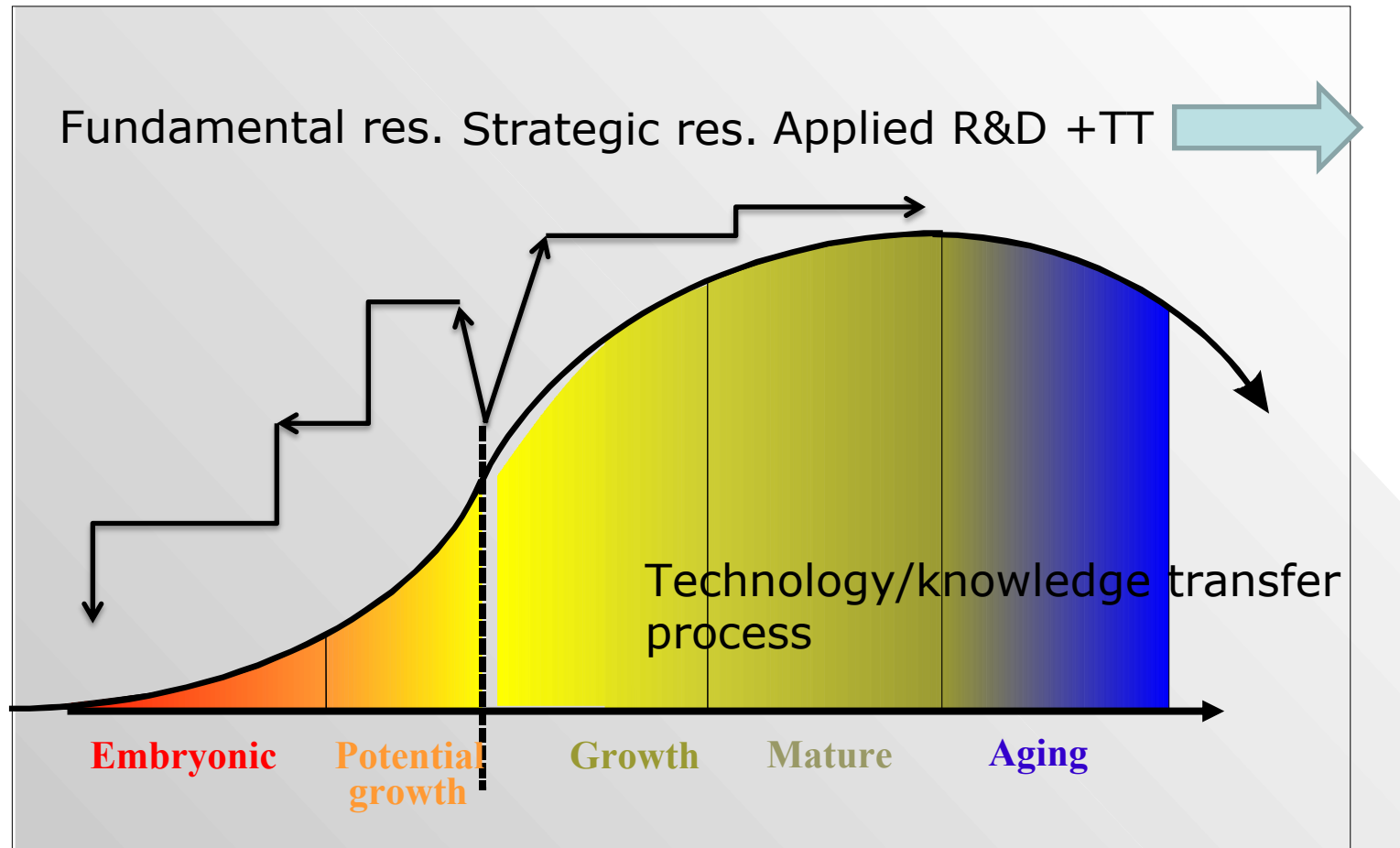
Consultant Professor NPU –Xi'an

Part 2: The global picture on RIV

1. University **commitment to all types of research** - research paradigms
2. About autonomy versus structure, **management styles**
3. The **R&D funnel at all university levels** – stage gate processes
4. The **platform** concept in research and innovation
5. **What else?**
6. **Practicals**



Inductive versus deductive research paradigm



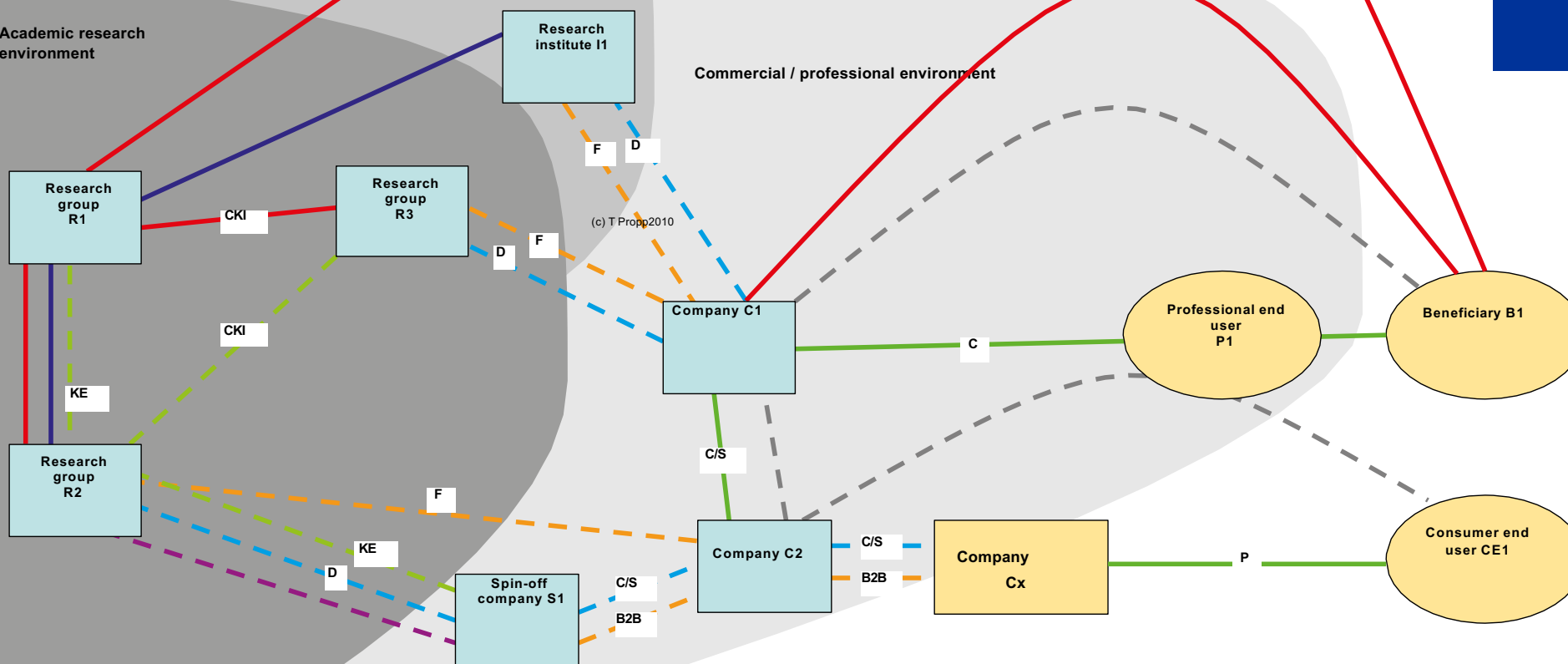
HUE Swot

2. Platforms

Non-academic research environment

Academic research environment

Commercial / professional environment



University governance for “Research” and “Innovation & Valorization”

Part 3: Research



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Pro Vice Rector –VUB

Consultant Professor NPU –Xi’an

Part 3: Research... *business as usual but "how to get out-of-the box?"*

1. What are we talking about in this lecture?
2. Principles and strategies
3. Flexible support of at least three levels of research
4. PhD schools
5. How to make research assets visible to the outside world?
6. Science communication
7. Practicals

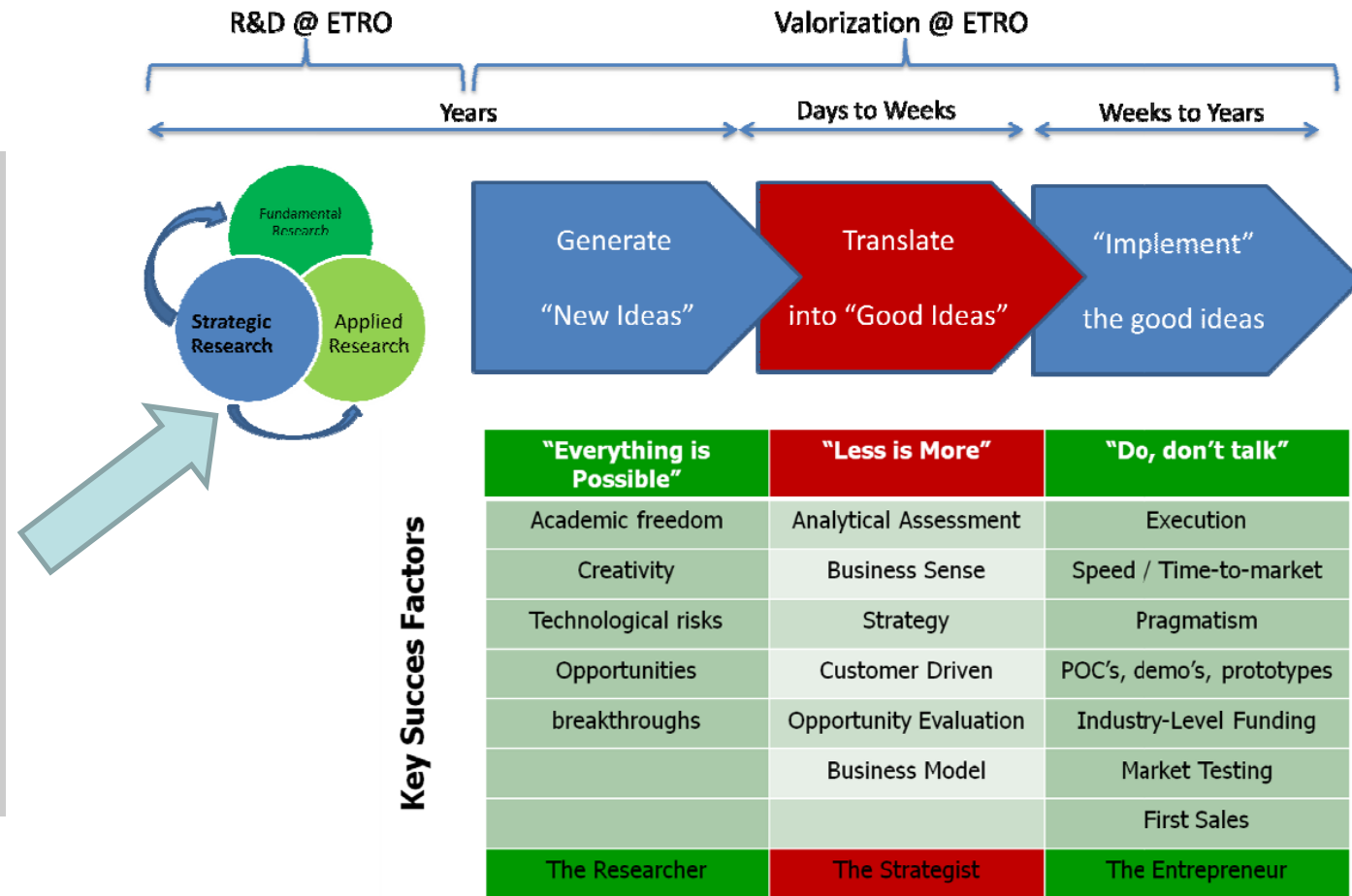
1. The funnel from new idea to good idea – “How to create an ecosystem producing a lot of new ideas?”

Proximity management:

- PhD promoters
- PIs
- Senior postdoc
- Research group leaders

Central governance:

- Laisser-faire leadership
- Do not intervene too much
- No thematic steering
- Quality assurance
- Coaching- generic services



Hue S

University governance for “Research” and “Innovation & Valorization”

Part 4: Innovation and Valorisation



Jan Cornelis (Emeritus Professor)

Pro Vice Rector –VUB

Consultant Professor NPU –Xi'an

Part 4: **Innovation and Valorisation**

1. **Services to society** (entrepreneurship in education, university-industry network)
2. University and government **commitment to all types of research**
3. Technology Transfer Office – **TTO functions**
4. The **platform** concept in research and innovation – some collaborative R&D models: living lab, strategic research centers
5. (Inter-)university **VC investment funds**
6. **Internationalisation** - partnerships
7. **Practicals**

1. The changing university ecosystem ...

- The new *normal* student :
"Some will want to become entrepreneurs, all will have to be entrepreneurial"
- - Entrepreneurship and Entrepreneurial attitudes are core competencies that are expected from our graduates

An area for new initiatives

NO CONCLUSIONS

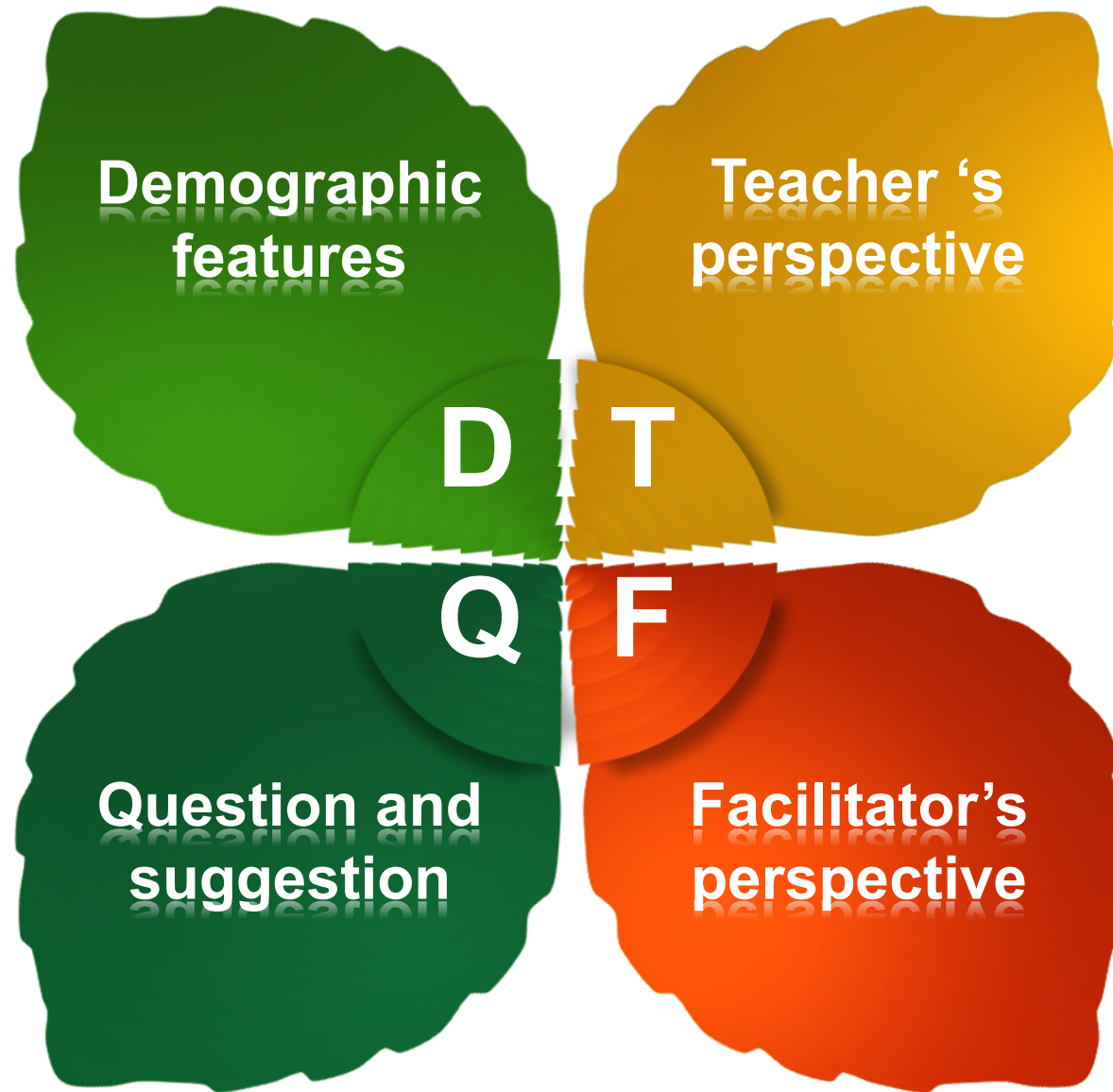
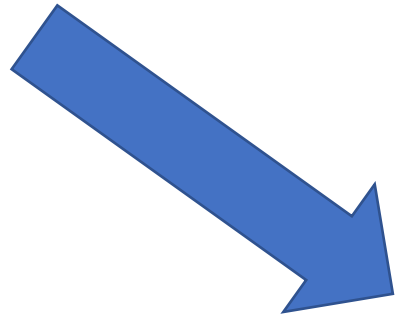
This is one global model of university governance on research and innovation and valorization

Valorization is still an art, and is highly context dependent

For sure you need a model if you want to go beyond occasional hits

I hope you can be inspired by some aspects of the VUB model and wish you creativity in designing your own – intervention models are a first step towards this goal

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Module 2 – CONTENT and Strategic reflection

QUESTION AND SUGGESTIONS FOR DISCUSSION

Question: How did the others proceed? (Module 1, 3, and 4)

Suggestions:

- (1) Organize a private teacher Forum
- (2) Webinar for the workshops: live keynote speeches (LEAD MOOC participants can benefit from this).
- (3) Webinar for the LEADMOC: Live session
- (4) Collaboration on financial models / extension MOOC and research subjects in workshops