

— Implementing interdisciplinary learning in a university of applied sciences

Bram Pynoo

Office of Educational Affairs

VIVES University of Applied Sciences, Belgium



1

— **VIVES in short**

2

— **Interdisciplinarity in higher education & VIVES policy**

3

— **VIVES design framework for interdisciplinary education**

4

— **Good practices at VIVES**

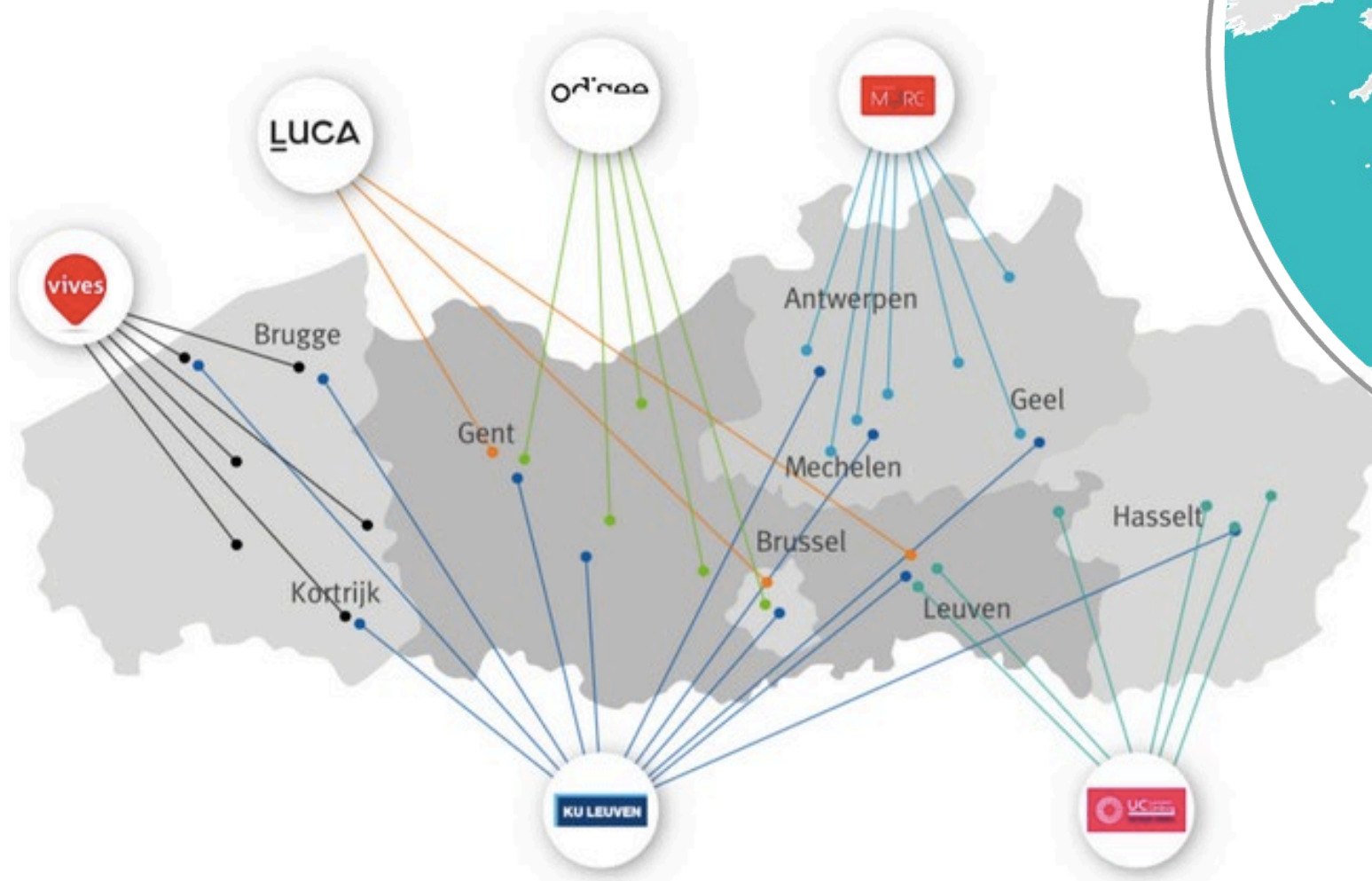
— VIVES in short

A short introduction



— VIVES in short

University of applied sciences, located in West Flanders Belgium



6 **125**
COURSES
interesting
fields of study

30 **bachelor degrees**

- BIOTECHNOLOGY
- HEALTHCARE
- COMMERCIAL SCIENCES,
AND BUSINESS MANAGEMENT
- APPLIED ENGINEERING
AND TECHNOLOGY
- EDUCATION
- APPLIED SOCIAL STUDIES



17.500
students

2000 partner companies

modern campuses
with state-of-the-art
buildings

1500 employees
1000 expert lecturers

2 **ASSOCIATE**
DEGREES

3 **bachelor programmes**
(English)

advanced bachelor
(English)

1

— Interdisciplinarity in higher education & VIVES policy

2



— Interdisciplinarity

What's in a name?

General definition: integration of multiple disciplines

Distinguished from multi- and transdisciplinarity

- **Multi**= different disciplines involved
- **Inter**= disciplines are integrated
- **Trans**= boundaries of disciplines disappear

— Interdisciplinarity in VIVES policy



Educational vision: Preparing students for the professions of tomorrow



Interdisciplinary cooperation = one of VIVES 21st century competences



Educational policy plan (2022-2028)

"The programme gradually confronts students with socially relevant authentic learning experiences that are approached in collaboration with other disciplines and/or external partners."



-> 'connected and agile curricula'

— Service-learning & interdisciplinarity in VIVES

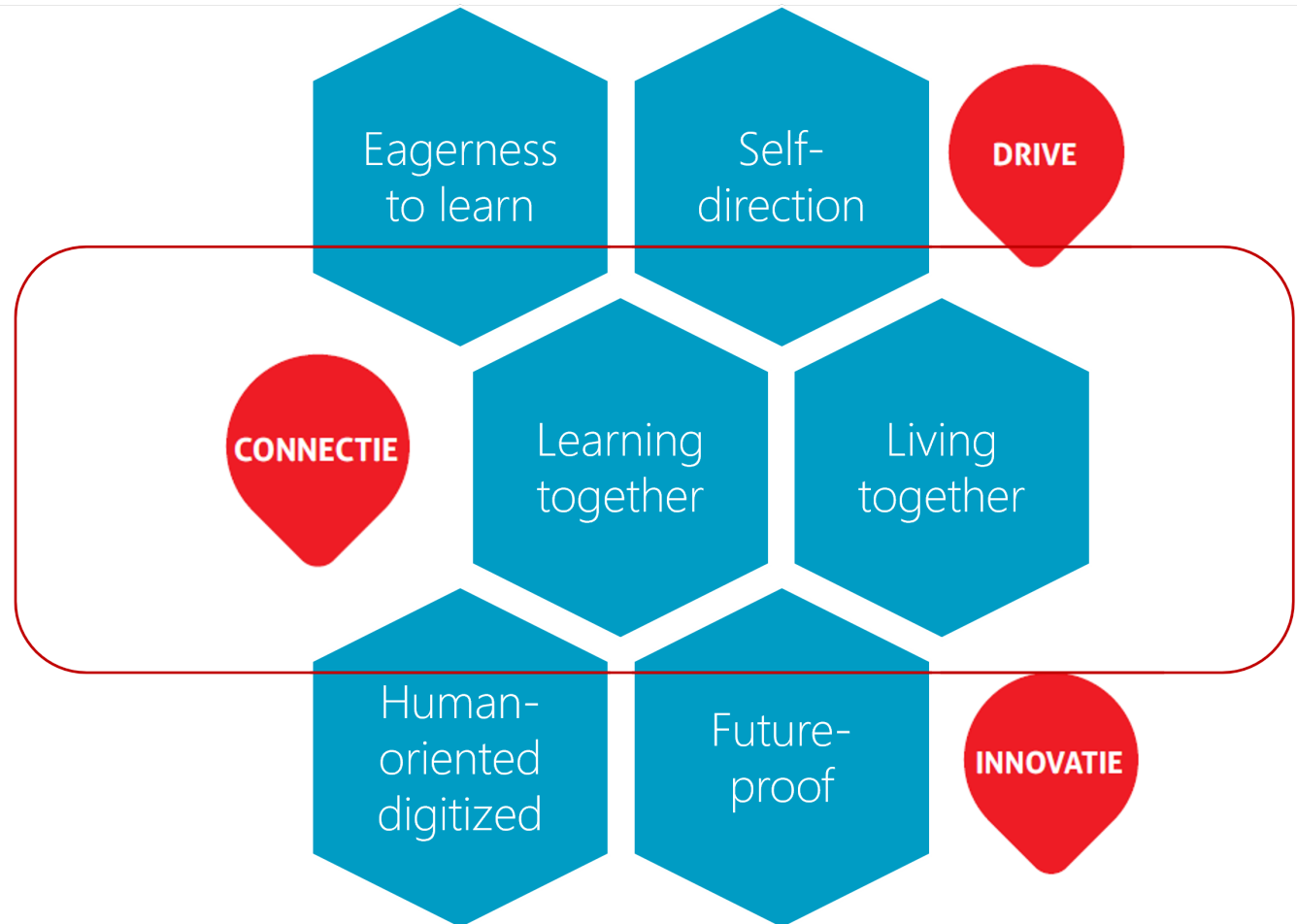
Educational policy plans 1 & 2: Gradual build-up to service-learning

EPP1 (2017-2022): learning through social engagement

- Service-learning as a special case of intra-curricular social engagement validated with reflection

EPP2 (2022-2028): service-learning as part of the action global engagement

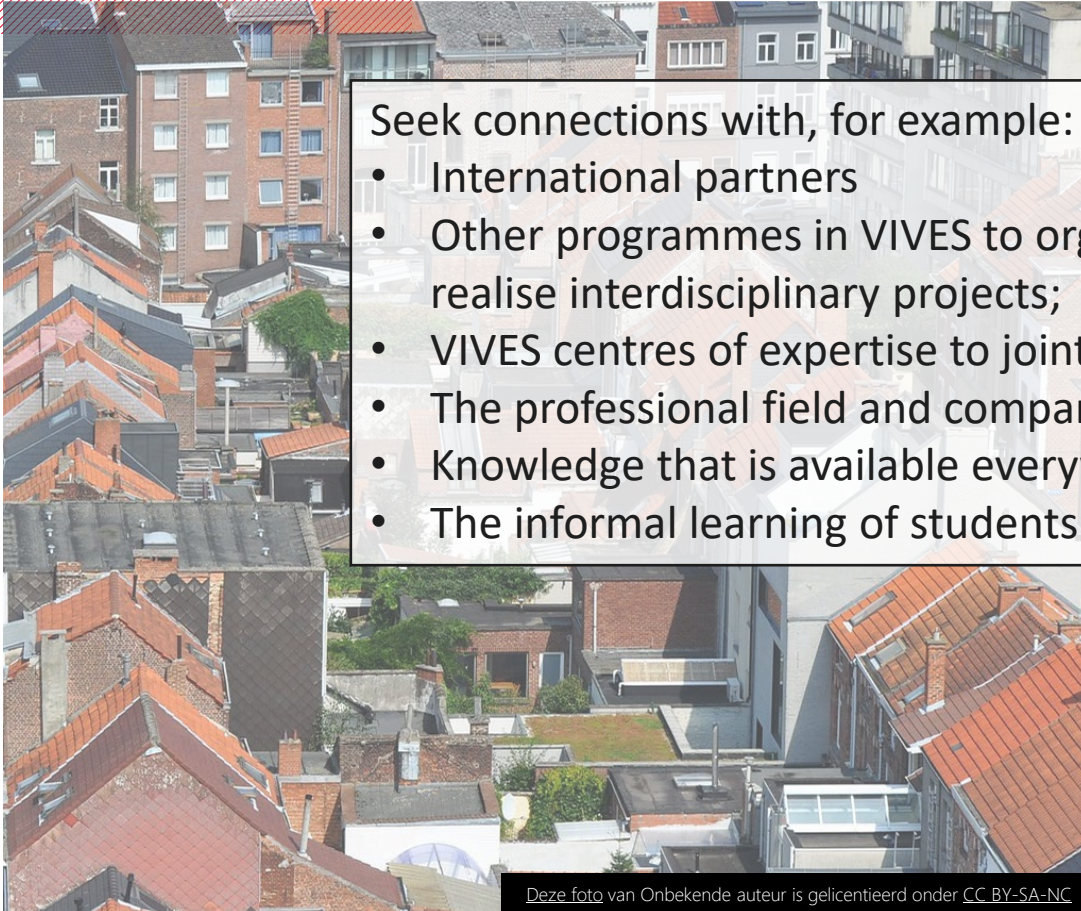
- Linked to interdisciplinary collaboration & working with authentic tasks



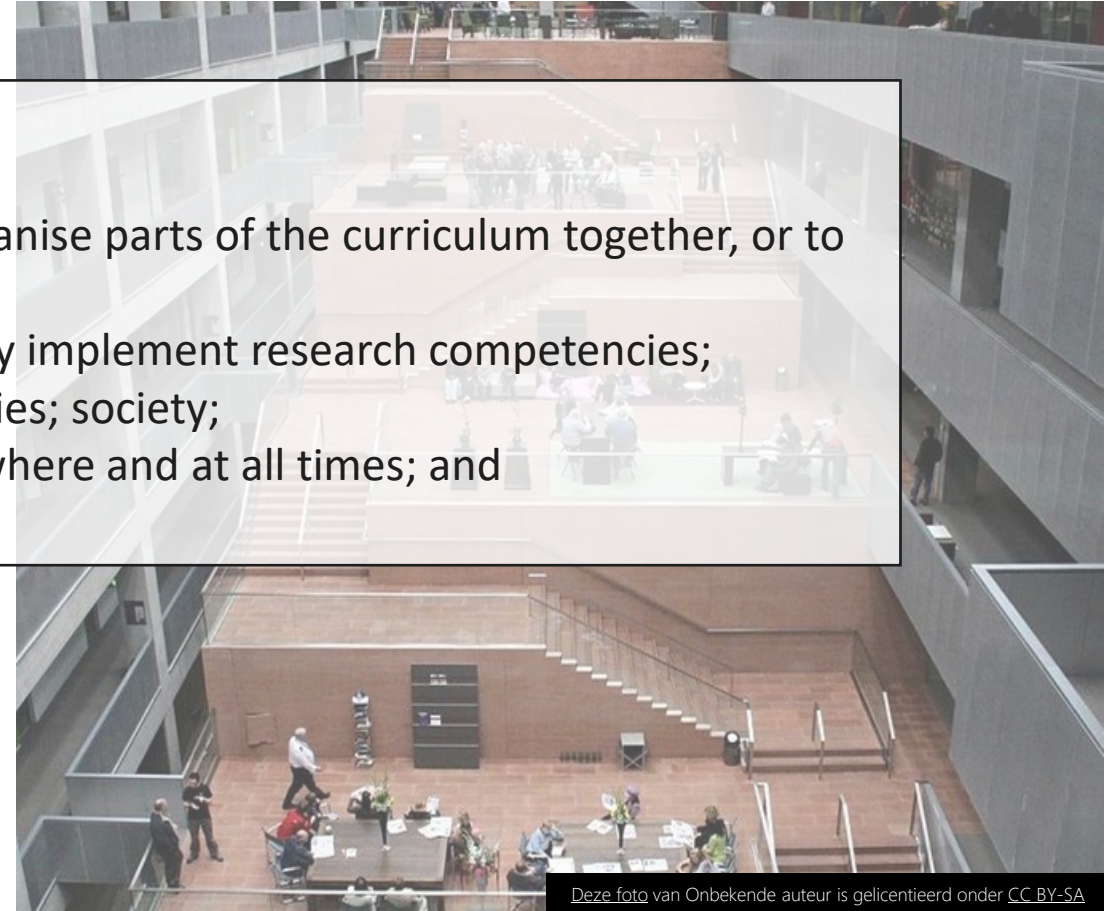
— Connected curriculum as foundation

Seek connections with, for example:

- International partners
- Other programmes in VIVES to organise parts of the curriculum together, or to realise interdisciplinary projects;
- VIVES centres of expertise to jointly implement research competencies;
- The professional field and companies; society;
- Knowledge that is available everywhere and at all times; and
- The informal learning of students.



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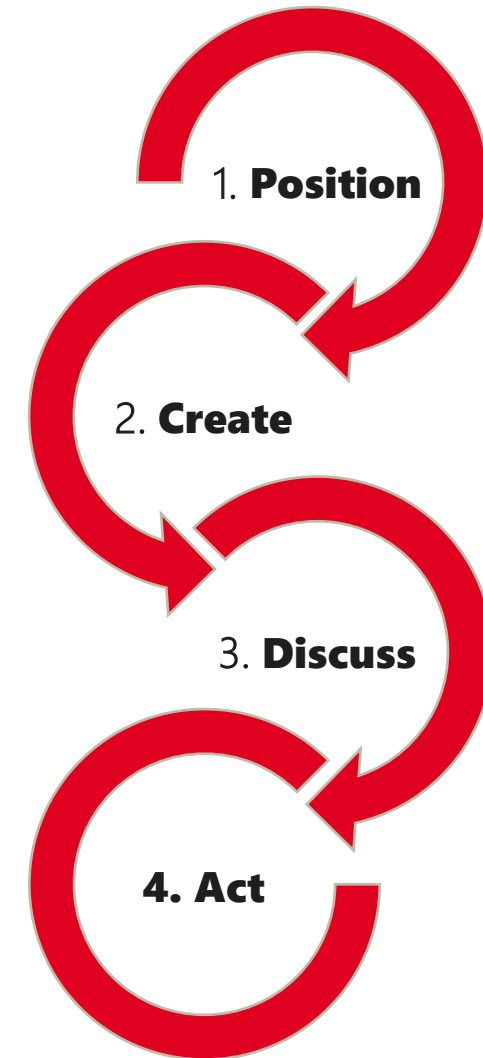
VIVES design framework for interdisciplinary education



— Design framework

Purpose and construction

- Designing interdisciplinary education = **complex** interplay of formal, content-related, didactical and organisational elements
 - > clarify this complex reality + start the discussion within program teams
- To make **informed choices** in shaping interdisciplinary educational programs
- **Target audience** = heads of programs, group directors, lecturers and educational developers



— Backbone of the design framework

Seven core elements of interdisciplinary education



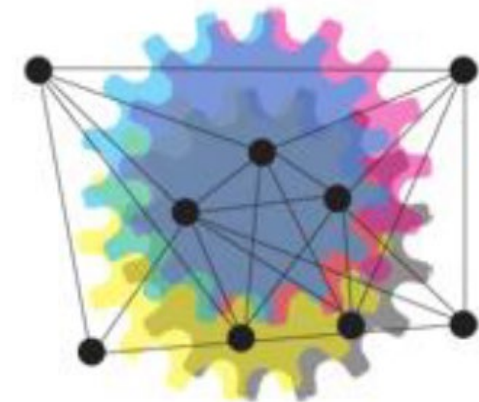
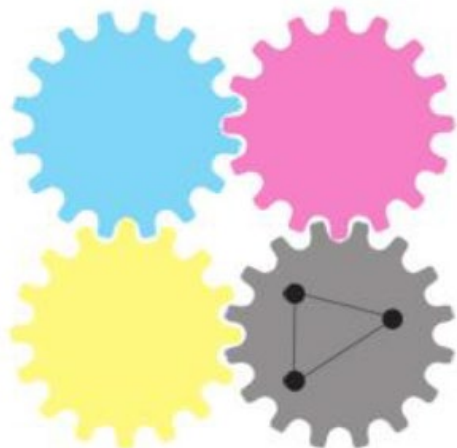
Students	Which students are immersed in interdisciplinarity?
Context	In what contexts are students immersed in interdisciplinarity?
Interpretation	What is the interpretation of interdisciplinarity? From multi-, over inter- to transdisciplinarity.
Range	To what extent are different disciplines involved? From narrowly interdisciplinary to broadly interdisciplinary.
Learning environment	To what extent is the learning environment focussing on interdisciplinary competences?
Alignment	Are the goals clarified, integrated systematically in teaching and learning activities and explicitly tested (cf. constructive alignment; Biggs, 1996)?
Coherence	Are the interdisciplinary initiatives in the program coherent? From stand-alone initiatives by individual teachers to an integrated program-wide approach.



— Each of these elements: three potential formats

For example Core element 3 "Interpretation"

Multidisciplinary	Interdisciplinary	Transdisciplinary
<ul style="list-style-type: none">• Various disciplines contribute expertise• Expertise continues to coexist• There is no knowledge transfer or integration between the disciplines	<ul style="list-style-type: none">• Interaction between experts and integration of expertise of various disciplines• Boundaries between disciplines persist• Common goals and products (that could not arise from the individual disciplines)	<ul style="list-style-type: none">• Cocreation by experts from various disciplines and non-experts• Boundaries between disciplines disappear• A new jointed knowledge base or solutions are created for cross disciplinary authentic problems



Workshop

Interdisciplinary profile

Reflection questions

How or in which course(s) are students prepared for interdisciplinary work?

Who/which partner(s) can you involve in your course?

What aspects haven't you taken into account yet; Who can you involve?

To what extent is there **coherence** between the interdisciplinary initiatives in the programme? From stand-alone initiatives by individual teachers to an integrated training perspective (cf. connected curriculum).

Stand-alone initiatives of individual teachers (1) / Multiple related initiatives (2) / Integrated training perspective (3)

To what extent are competences for interdisciplinary collaboration clarified, pursued purposefully in the teaching and learning activities and systematically tested (cf. **constructive alignment**)?

Implicitly addressed (1) / Explicit purpose of teaching & learning activities (2) / systematically tested (3)

Course:

Program:

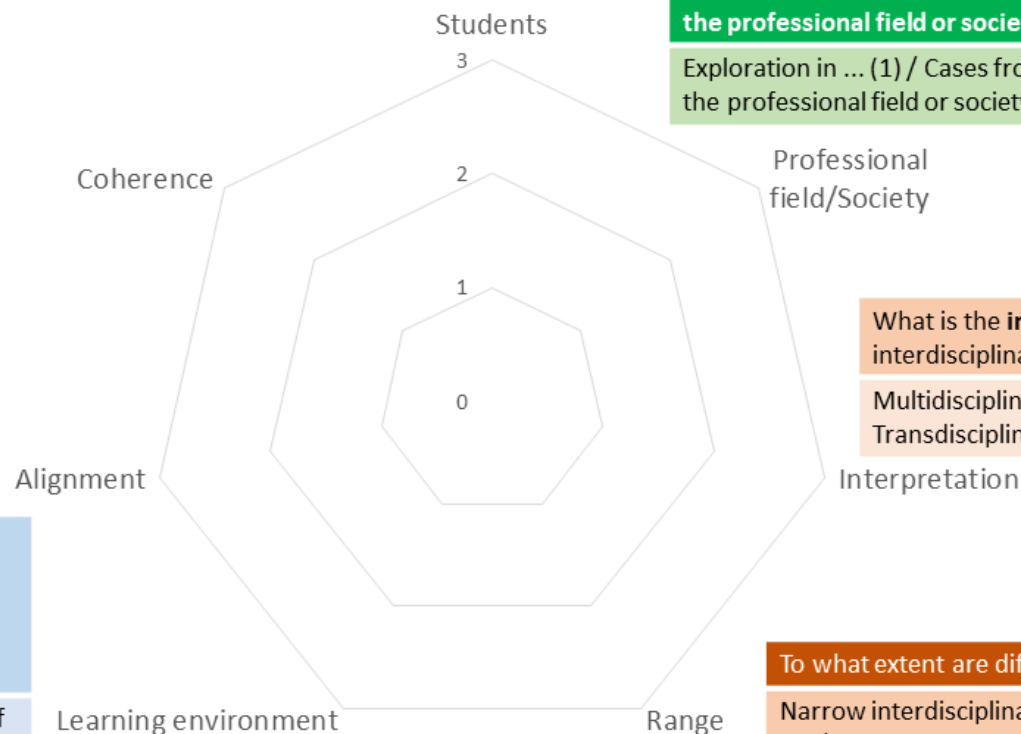
Year/Phase:

Which **students** come into contact with interdisciplinarity?

Individual student (1) / Subgroup students (2) / All students (3)

How do students come into contact with interdisciplinarity in the **professional field or society**?

Exploration in ... (1) / Cases from... (2) / Cases with & for... (3) the professional field or society(3)



What is the **interpretation** of interdisciplinarity?

Multidisciplinary (1) / Interdisciplinary (2) / Transdisciplinary (3)

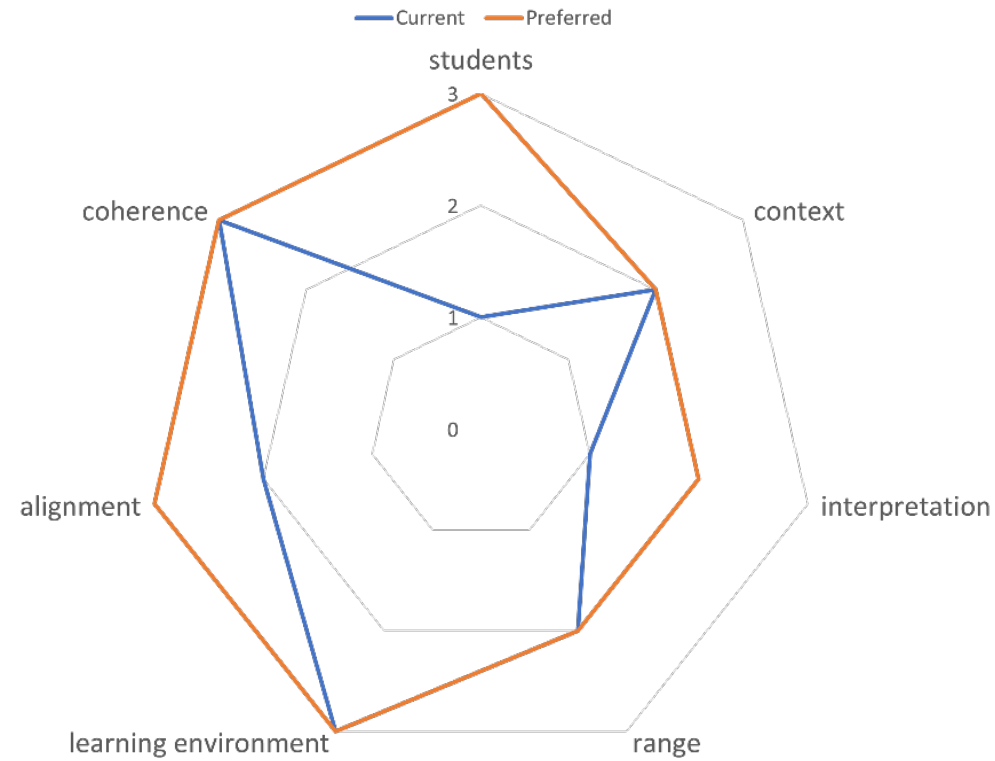
To what extent are different disciplines involved?

Narrow interdisciplinary (1) / Related interdisciplinary (2) / Broadly interdisciplinary (3)

To what extent is it an educational offer aimed at learning interdisciplinary collaboration (versus a collaboration between programmes that has no immediate impact on the teaching, learning and testing activities for students)?

Interdisciplinary collaboration between lecturers or study programmes (1) / Students come into contact with interdisciplinarity (2) / Teaching, learning and testing activities that aim at competences for interdisciplinary collaboration (3)

— Interdisciplinary profile of the program



— Discussion of the profile in the program team

Towards an action plan



- Interdisciplinary profile = starting point for discussing how interdisciplinarity is currently/preferably shaped in the program
- Keep in mind the uniqueness of the program, nature of field of work

Guiding questions:

- *In what ways is interdisciplinarity part of the work field?*
- *What interdisciplinary competences are important to work towards in the program?*
- *Where in the program do students have opportunities to learn these interdisciplinary competences?*
- *Does the obtained interdisciplinary profile of the program match the way we want to shape interdisciplinarity in the program? What would an ideal interdisciplinary profile of the program look like?*
- *Which core elements are in line with how we want to build interdisciplinarity into the courses of the program?*
- *Where are opportunities for growth, given the uniqueness of the program and the field of work or social context?*

— Good practices at VIVES

4



— VIVES-learning lines on interdisciplinary collaboration

2 good practices



Interdisciplinary learning line
in the study area Social Work (SAW)



Interdisciplinary
Learning line from
Year 1 onwards

	Year 1	Year 2	Year 3
Volume	2 days	1 day per semester	= 36h clinical education
Aim/content	Getting to know the own & other disciplines	Interprofessional case studies	Firstline healthcare <ul style="list-style-type: none"> • Real-life problem Different target groups: <ul style="list-style-type: none"> • Elderly • Socially vulnerable families
Participants	Students	Students	<ul style="list-style-type: none"> • 10 cities and towns • Students & Professionals & Inhabitants
Course (Ba nursing)	As part of Professional practice 1 (11 credits)	As part of Professional practice 2 (19 credits)	LiveLab (3 credits)
Evaluation	Participation & permanent evaluation	Participation & permanent evaluation	<ul style="list-style-type: none"> • Proces evaluation + peer-assessment (40%) • Group presentation + jury (60%)



Occupational Therapy

Speech Therapy and Audiology

Nursing

Midwifery

Nutrition and Dietetics

Care Technology

Social work

Applied Psychology

* Elective course in Y3

Interdisciplinary learning line & Bachelor thesis in study area social work

In short:

- **Interdisciplinary (program & study area)**
- **Real project from the field**
- **Gradual buildup of the interdisciplinary learning line**
- **All students choose a track for the 2nd semester of Year 3 (also international students)**

	Year 2	Year 3 – Interdisciplinary track	Bachelor thesis
Volume	1 week	2nd semester	Final 9 weeks of 2nd semester
Participants	(international) Students + (inter)national experts	All (international) students of the study area Social work + some students of Education or well-being Programs	Students in groups (of max 8) + stakeholders (organizations / cities)
Course (Applied Psychology)	BaAP in International perspective (3 credits)	30 credits, different courses per track (total of 18 credits)	Integrated interdisciplinary project (12 credits)
Evaluation	Permanent evaluation (paper)	Depending on the courses	Individual evaluation following group project & presentation



**Recovery-
oriented &
connecting
work**

Young Force

**Stronger
diverse**

**Well-being in
children and
professionals**

**Social
influence**

**Social
entrepreneurship**

**Making city
together**
Building bridges in a
liveable city

eSociety

S.P.A.C.E.
Social Pedagogical Art
& Creativity
Exploration

F.L.O.W.S.
Focus on healthy Life,
Organisations and
Wellbeing in Society

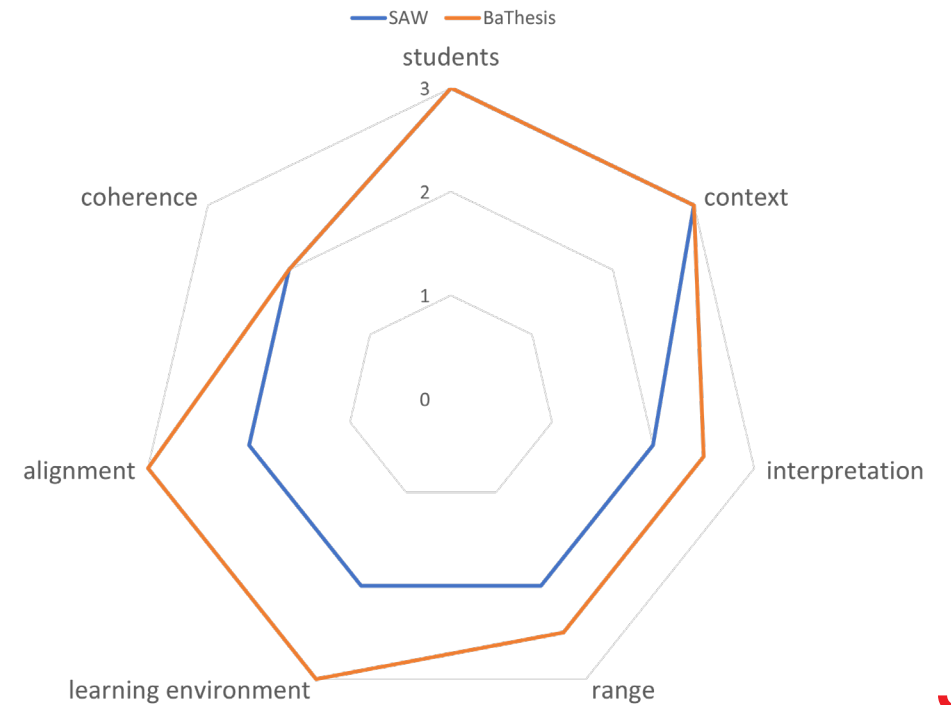
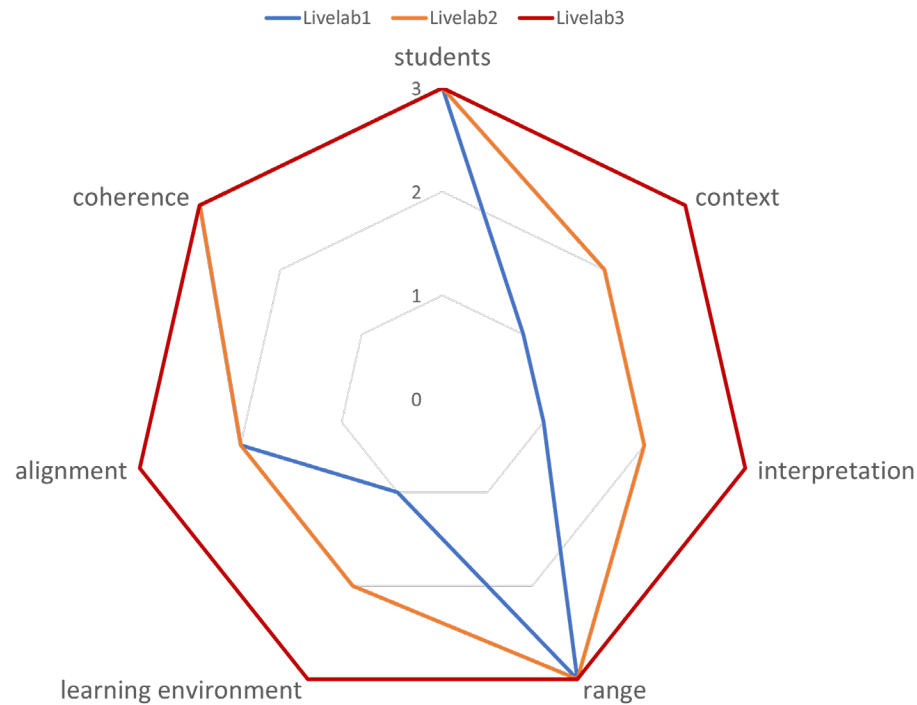
**Mobility
Window**
Traject of project

Tracks

— LiveLab en Interdisciplinary learning Social Work



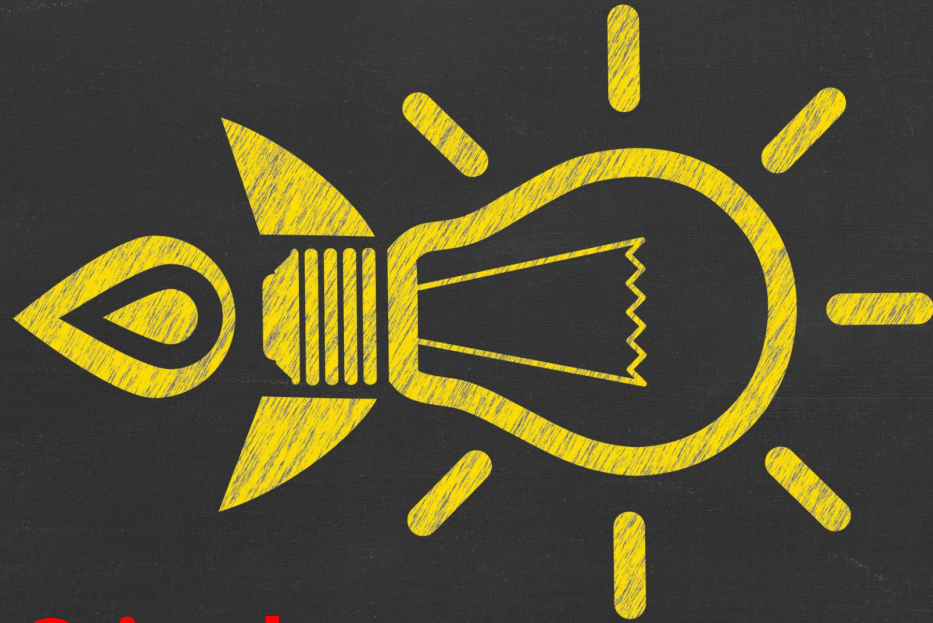
SAW



Thank you!

Questions?

Bram.Pynoo@vives.be



The background image shows a large, historic brick building with a grey roof and many windows, likely a university building. In the foreground, a large green lawn is filled with many students sitting and standing, suggesting a social gathering or a break. The sky is blue with some light clouds.

Community Service Learning

An interdisciplinary course



Universiteit
Antwerpen

15 september 2023



Service-learning and Interdisciplinarity

1. Introduction of the interdisciplinary course
2. Added value/opportunities
3. Challenges
4. Tips



1. Introduction of the interdisciplinary course 'Community Service Learning'

- Elective course – all year (1st and 2nd semester) – 3 ECTS-credits
- For who?
 - Open for all undergraduate students (bachelor 3)
 - Students from all programs (all faculties)
- How?
 - Support community partners in answering a current need/question (practical research) *academic competences*
 - While performing service (40h) *social engagement*
 - Through critical reflection to deepen and broaden the experience and practical research *reflection*
 - *In all stages students (can) work interdisciplinary*



1. Introduction of the interdisciplinary course 'Community Service Learning'

- With who?
 - Various community (social) partners
 - Preferable support of vulnerable individuals and groups
- Output
 - Paper/creative work piece: useful and relevant for partner and its target audience
 - Portfolio: learning (video) diaries, reflection assignments (supervision ...)
 - 40h practical experience

Setup



- *Before:*
 - Getting to know community partners and needs beforehand
 - Meeting and matching event (all actors)
 - Intake interview with individual student in order to do the matching and compose interdisciplinary groups
- *1^{ste} en 2^{de} semester*
 - Colleges: doing practical research, what and why reflect?
 - Reflection assignments : video diaries & supervision (critical incident-method)
 - Service (40u)
 - Feedback (mandatory & facultative)

2. Added value of working interdisciplinary

- In general:
 - Seeing the interdisciplinary nature of issues in the community
 - Translating particular academic competencies into civic competencies
 - Assignments that demonstrate student's achievement of global civic and cultural competences
 - Include explicit learning outcomes related to global civic and cultural competences
 - All actors find interdisciplinary collaboration an added value





2. Added value of working interdisciplinary

- For students:
 - Easier to find an answer adequately and more quickly *'Two pair of eyes see more than one'*
 - Connecting different point of views
 - Connecting different academic competences
 - Connecting different personal competences
 - Easier to reflect
 - Different points of views reinforce each other
 - Create a safe environment to share

2. Added value of working interdisciplinary

- For community partners:
 - Working with students with a different background leads to a more concrete view of the need which automatically leads to more initiative
- For lecturers:
 - Students as 'critical friends': lift each other to a higher level
 - 'Scaffolding' – lecturer as coach



3. Challenges

- Mostly practical issues:
 - Finding time to collaborate
 - Finding time for learning activities (colleges, timetable)
 - Lack of communication skills (division of tasks, ...)
 - No match of personalities
 - Lack of proper planning
- Challenges do not get in the way of the benefits of interdisciplinary working





4. Tips

- Invest in support and relationships with community partners and students
 - Networking events (beginning + end)
 - Intake interview
- Emphasis of 'sharing' and feedback
 - Create a safe environment to do the sharing
- Emphasis on importance of communication
 - How, when, with who, ...
- Mix groups (other groups in supervision)



Questions and/or more information?

- community.servicelearning@uantwerpen.be
- eva.vanmoer@uantwerpen.be
- gerlinde.verbist@uantwerpen.be

Transdisciplinary Insights

Tinhtam Nguyen & Jan-Peter Sandler

On behalf of Institute for the Future



KU LEUVEN

106 FM



RADIO SCORPIO

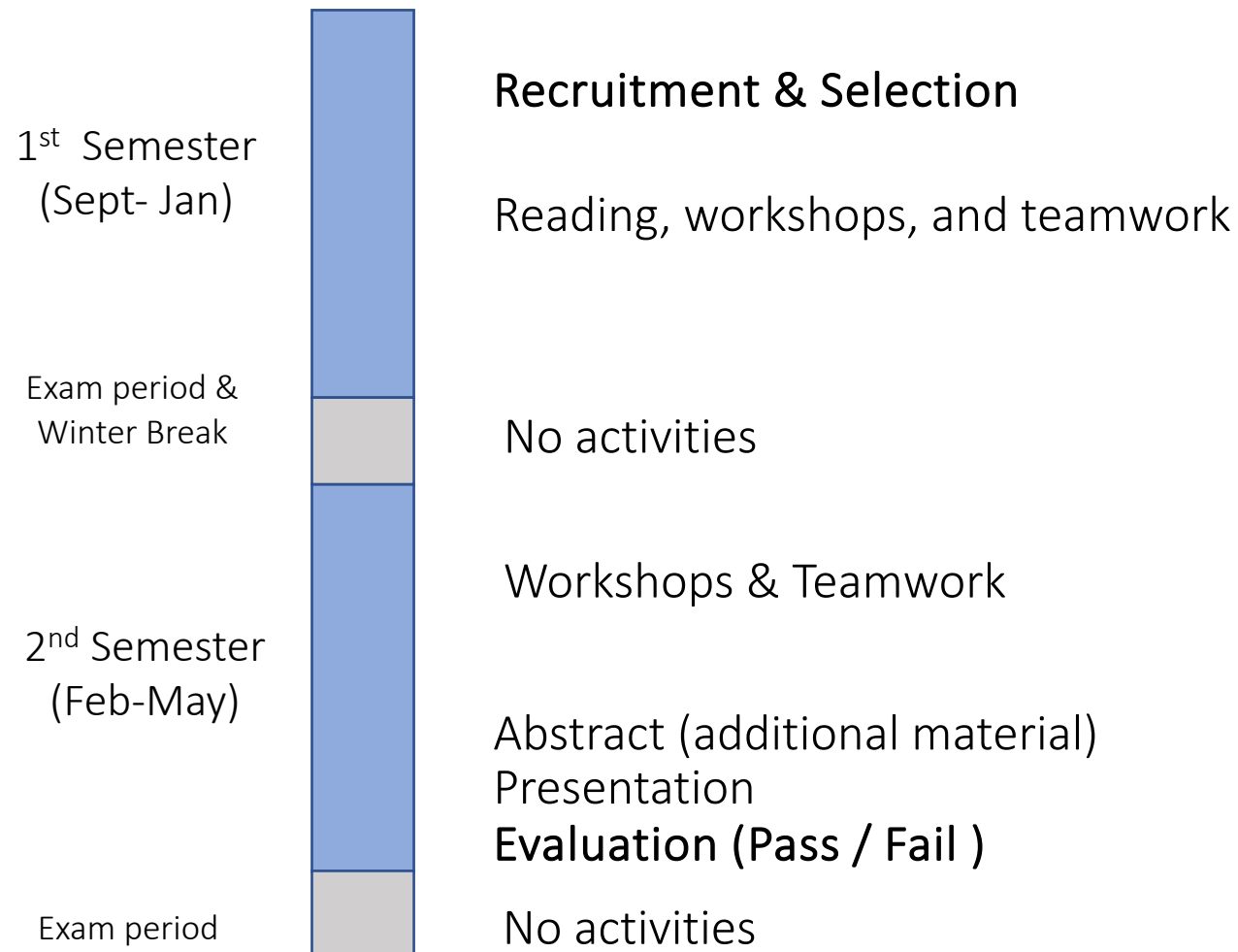


Overview

- How's and what's of the programme
- Our Framework
- Reflections

[Link to Interview](#)
(click to view)

Course Structure & Program Calendar



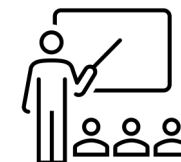
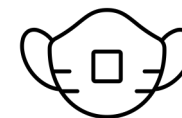
6 ECTS

2 Kick off moments
5 workshops
16 teamwork sessions
Average 4h per week
Total: +/- 150 h

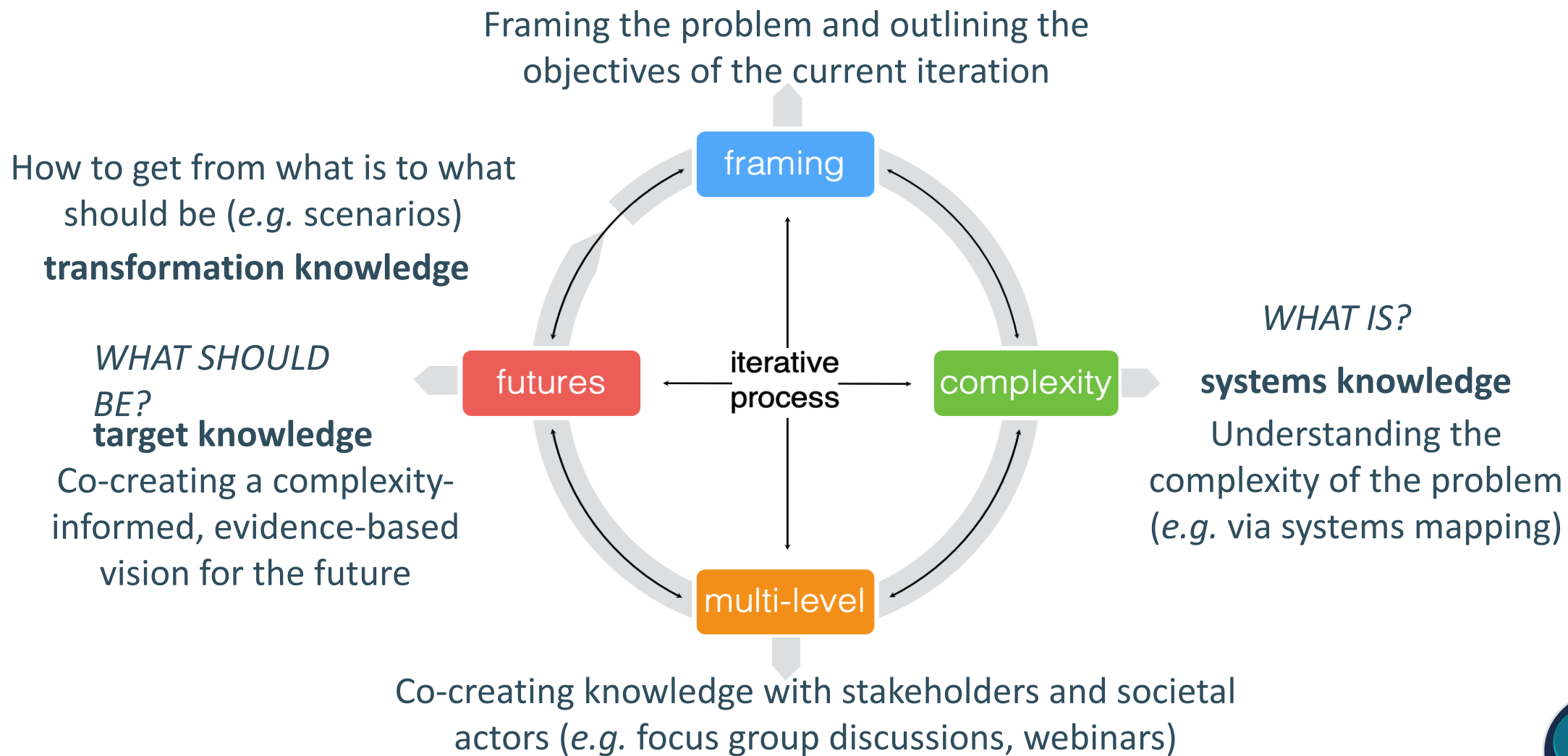
Sessions every week
Thursdays from 6:00 pm till 8:00 pm
(Workshops take 30 minutes longer)

Learning by doing: project-based learning

- Coronavirus Pandemic Preparedness
- HIV drug resistance in Africa
- Hacking Consumerism
- Making sense of the Anthropocene
- Eradicating Endemic Poverty with Education
- Reimagining Higher Education
- Resource Governance and Peacebuilding
- ...



Designing Feasible Futures Framework (DF3)

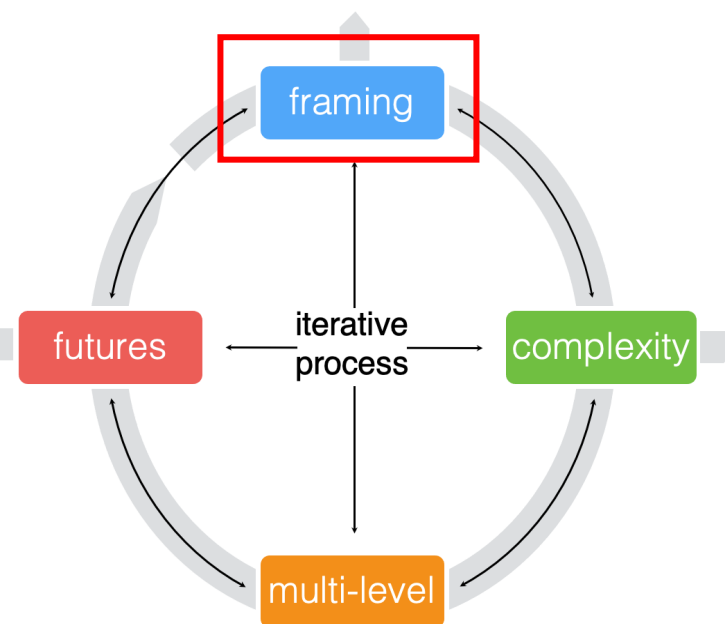


DF3 - Framing

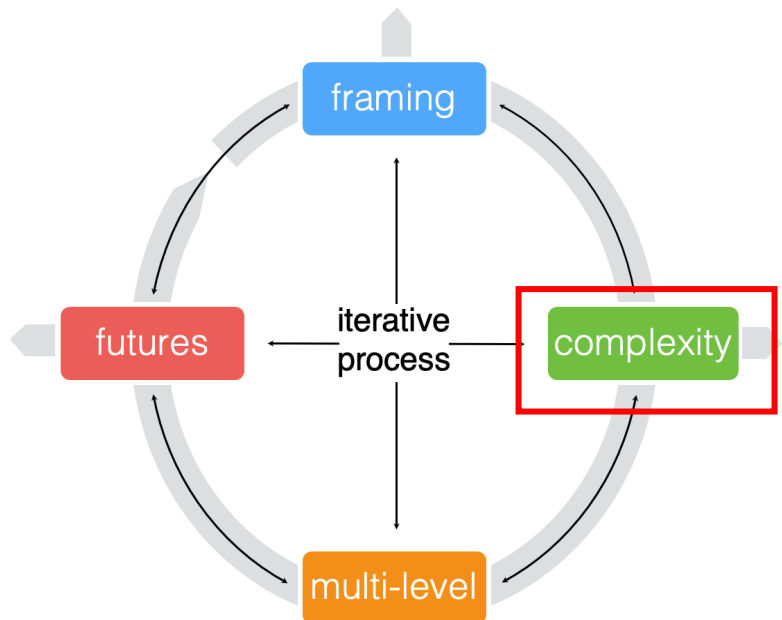
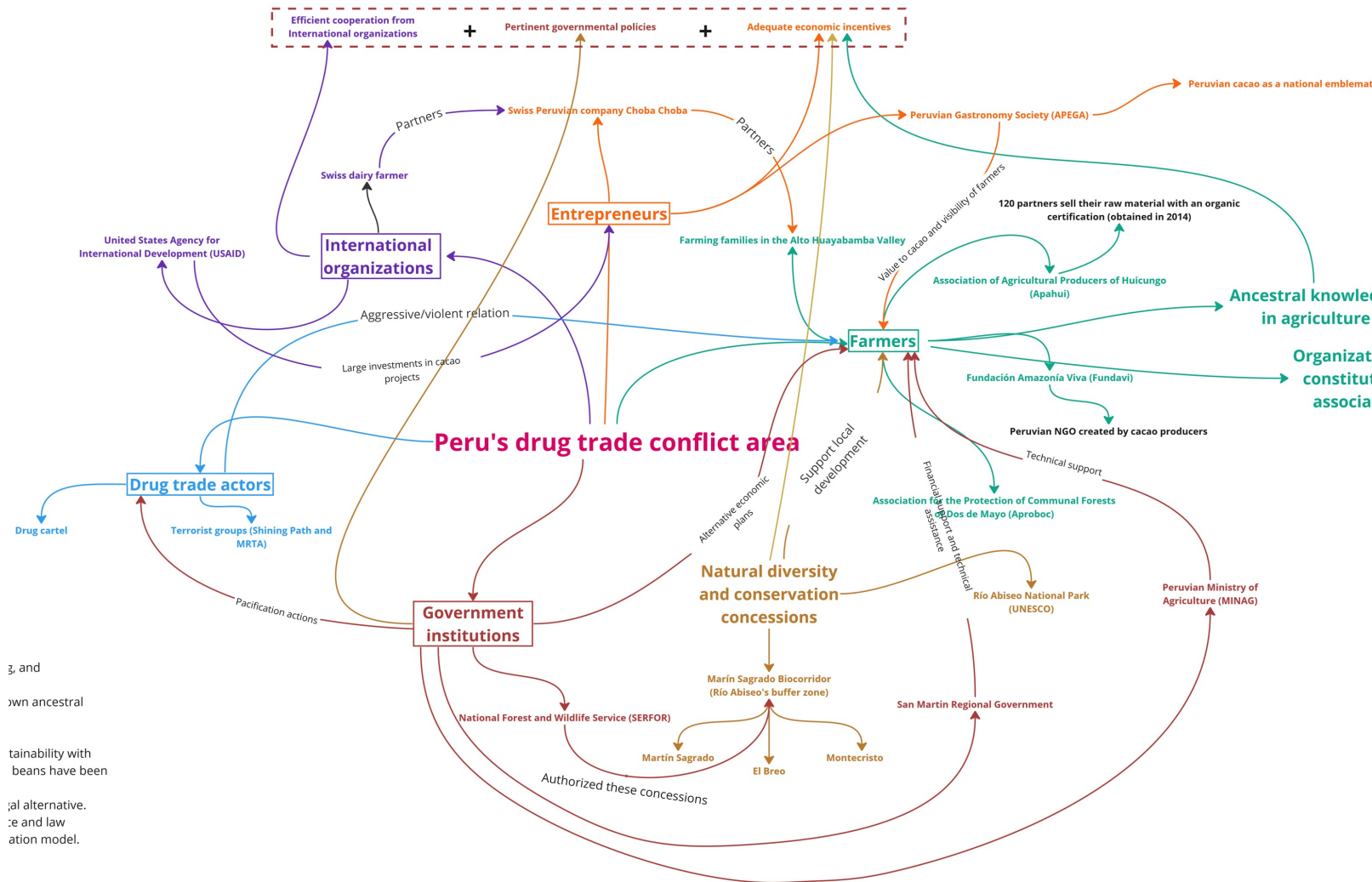
Peacebuilding team's revised Theory of Change

(the team made this sentence together by playing the “Exquisite Corpse” game)

Peace is stake *because of* unequal exploitation of public commons as well as their benefits and consequences; *however, by* mobilizing the global public to protect marine resources *through* enhancing understanding of our shared responsibility & ownership, *we can ensure that public commons will be managed sustainably and equitably.*



DF3 - Complexity

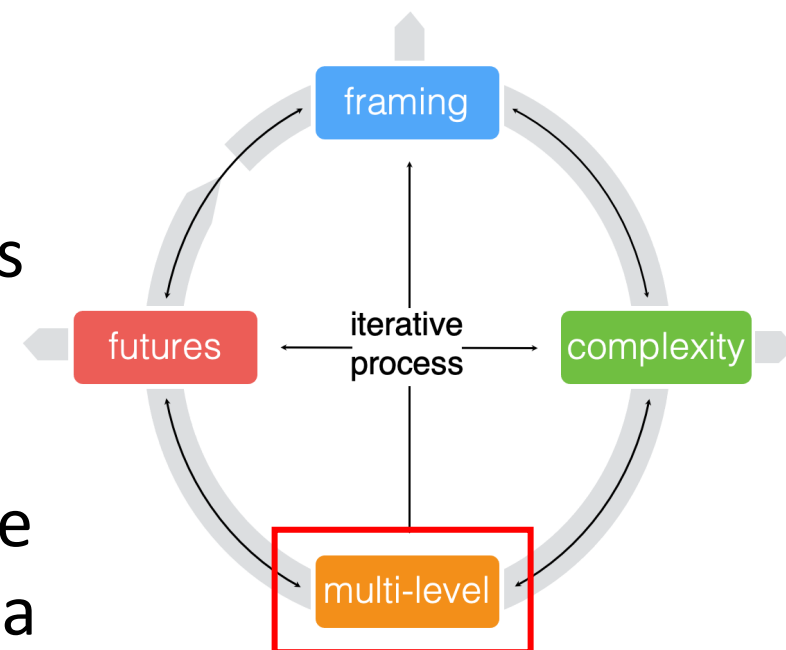


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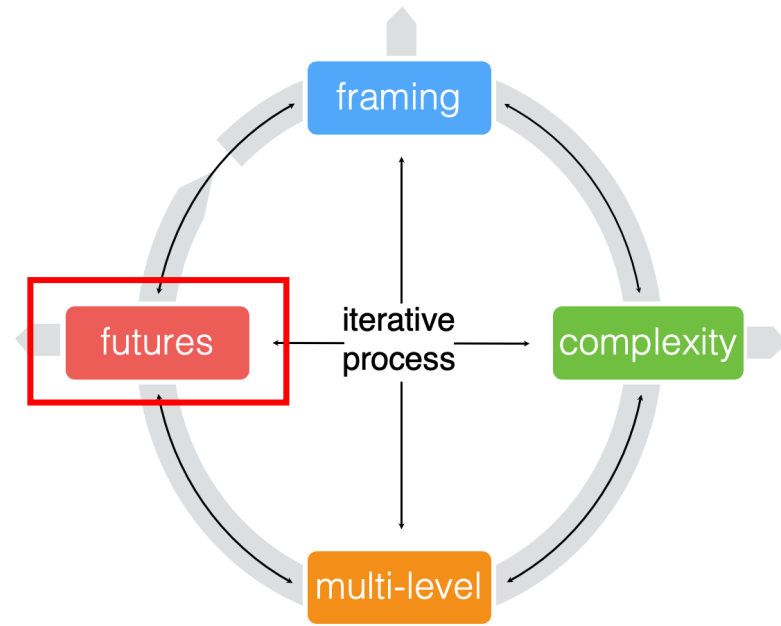
DF3 – Multi-level

Stakeholders that the team reached out via emails and phone calls

- International Seabed Authority
- The Metals Company (one of the biggest advocates of deep-sea mining)
- The Sustainable Ocean Alliance hub in Peru
- Peruvian congressman that introduced a bill for the first moratorium on seabed mining in Latin America
- Catholic Secretariat of Nigeria
- Orthodox Catholic Bishop
- KU Leuven Green Office
- ...



DF3 – Futures



Program aims

- Transdisciplinary Approach
 - Transcend disciplinary boundaries to **holistically** analyze the complexities of wicked problems
- Engagement with Societal Actors
 - Foster dialogue across scientific disciplines and societal stakeholders
 - Enhance mutual understanding and collaboration
- Knowledge Dissemination and Critical Reflection
 - Present findings to a broad audience
 - Critically reflect on the learning journey and societal interactions.

Deepening learning through involvement

- Student Coaches
- Collaboration with professional projects
- Student Coordination
- Shaping through Feedback



“I feel like learning about wicked problems is like opening pandoras box.” (paraphrase)



HONOURS PROGRAMME TRANSDISCIPLINARY INSIGHTS
(for 2nd & 3rd-year Bachelor's and Master's students)

21st CENTURY TRAINING IN TRANSDISCIPLINARY SKILLS
(for Ph.D. students and researchers)



TRANSDISCIPLINARY INSIGHTS

Thank you – Questions?

www.institute-for-the-future.be

E-mail: tdi@kuleuven or
jan-peter.sandler@kuleuven.be

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