Measuring and Comparing Achievements of Learning Outcomes in HE in Europe

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CALOHEE: WHY ?

Measuring and Comparing Achievements of Learning Outcomes in HE in Europe

Do students enrolled in higher education around Europe develop the competences they need? Are study programmes delivering their promises? Can we learn from comparing students' achievements in an (inter)national context in a meaningful way?

Preposition:

If academic experts can agree on the set of learning outcomes, they should also be able to measure performance in comparative perspective in (inter)national contexts!

THE PROOF IS IN THE EATING OF THE PUDDING !

WHY? HOW? WHAT?

WHY?
- Meeting the demand for more reliable information about the outcomes of learning in HE
- Offering a drive for quality, taking into account fully the needs of society, in particular the four major stakeholders: HE students, HE staff and management, employers and employees, and civil society

- An attempt to create (in the longer run) a more effective, less bureaucratic and more reliable instrument for quality assurance !

WHY? **HOW?** WHAT?

HOW?
- ➢ Showing what a subject area does represent after consultation with stakeholders, in terms of core competences and learning outcomes according to the discipline
- ➢ Developing instruments that acknowledge the different missions, profiles and cultural contexts of Higher Education institutions

WHY? HOW? **WHAT?**

WHAT?
- Offering subject area based agreed frameworks of descriptors which allow for comparing and measuring quality of performance and outcomes set in the context of the institution
- Offering a detailed subject area based agreed Assessment Framework which aligns Learning Outcomes, Activities and Assessments
- Offering an instrument which allows for diagnostic assessment about meeting agreed quality requirements, societal needs and the particular mission of the programme involved

CALOHEE Project aims

> BENCHMARK 1:

Updated **transnational sectoral /subject area frameworks** (finalised after Consultation Process)

> BENCHMARK 2:

Multi-dimensional instrument to measure and compare levels of learning doing justice to the different missions, orientations and profiles of HE institutions
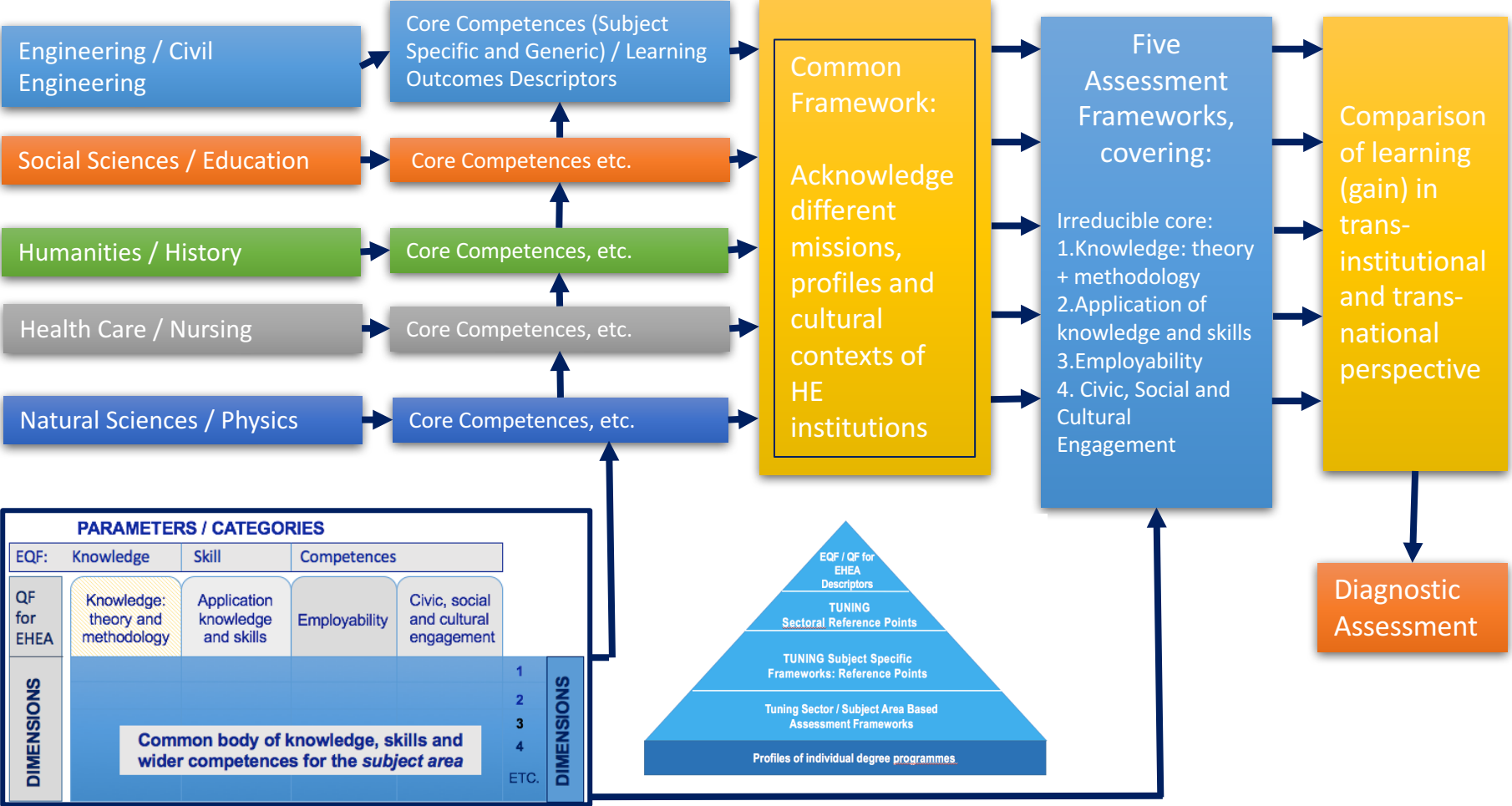
> BENCHMARK 3:

Assessment Frameworks for five academic domains and five related disciplines (Civil Engineering, Nursing, History, Education and Physics) (finalised after Consultation Process)

These instruments are the foundations for developing an assessment instrument that should allow for diagnostic assessments (serving teaching staff, students, management and society)
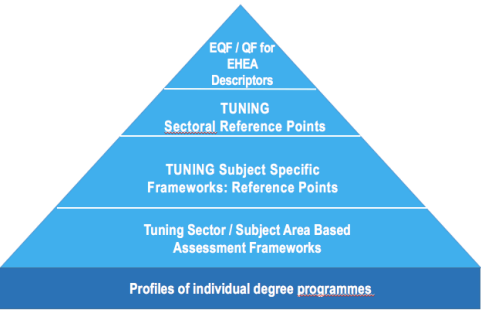
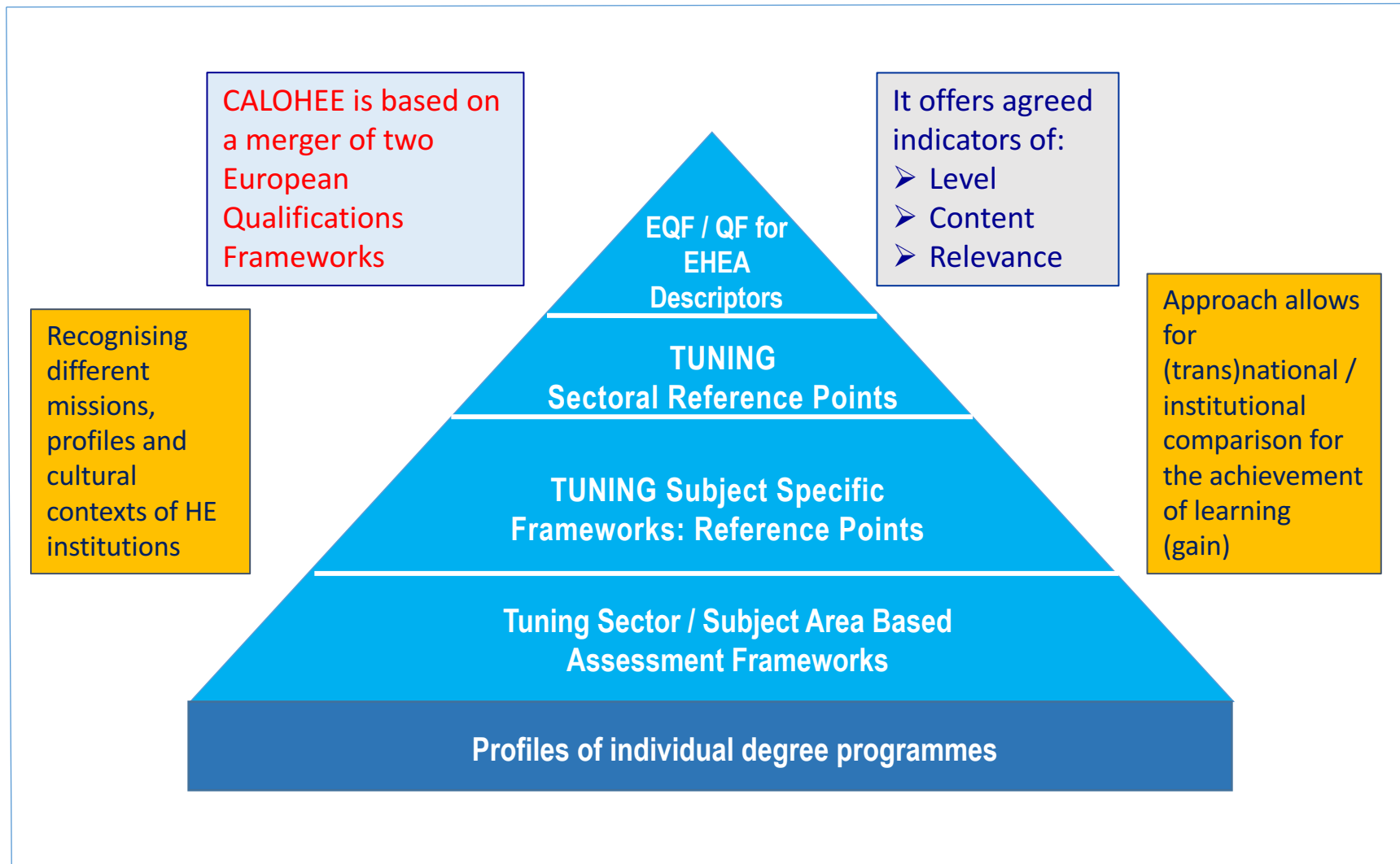**Overall objective of TUNING:**   **High Quality and Relevant Higher Education**

CALOHEE FLOWCHART

TUning
CALOHEE

Engineering / Civil Engineering	Core Competences (Subject Specific and Generic) / Learning Outcomes Descriptors	
Social Sciences / Education	Core Competences etc.	
Humanities / History	Core Competences, etc.	
Health Care / Nursing	Core Competences, etc.	
Natural Sciences / Physics	Core Competences, etc.	

Common Framework:

Acknowledge different missions, profiles and cultural contexts of HE institutions

Five Assessment Frameworks, covering:

Irreducible core:
1. Knowledge: theory + methodology
2. Application of knowledge and skills
3. Employability
4. Civic, Social and Cultural Engagement

Comparison of learning (gain) in trans-institutional and trans-national perspective

Diagnostic Assessment

PARAMETERS / CATEGORIES

EQF:	Knowledge	Skill	Competences			
QF for EHEA	Knowledge: theory and methodology	Application knowledge and skills	Employability	Civic, social and cultural engagement		
DIMENSIONS					1	**DIMENSIONS**
	Common body of knowledge, skills and wider competences for the *subject area*				2	
					3	
					4	
					ETC.	

EQF / QF for EHEA Descriptors

TUNING Sectoral Reference Points

TUNING Subject Specific Frameworks: Reference Points

Tuning Sector / Subject Area Based Assessment Frameworks

Profiles of individual degree programmes

CALOHEE is based on a merger of two European Qualifications Frameworks

It offers agreed indicators of:
➢ Level
➢ Content
➢ Relevance

Recognising different missions, profiles and cultural contexts of HE institutions

Approach allows for (trans)national / institutional comparison for the achievement of learning (gain)

EQF / QF for EHEA Descriptors

TUNING Sectoral Reference Points

TUNING Subject Specific Frameworks: Reference Points

Tuning Sector / Subject Area Based Assessment Frameworks

Profiles of individual degree programmes

Learning outcomes of the degree programme Euroculture

QF EHEA 2nd cycle descriptors I, III-V	SQF Humanities dimensions Level 7	EQF descriptor knowledge Level 7 *highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking and / or research ... critical awareness of knowledge issues in a field and at the interface between different fields ...*	EQF descriptor skills Level 7 *Specialised problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields ...* **QF EHEA 2nd cycle descriptor: 2. can apply their knowledge and understanding ....**	EQF descriptor Wider Competences Level 7 ...
Special feature degree programme	a. The Human Being	Analytical understanding of European identity/is, civil society/ies, the ongoing European unification process in itself, its cultural and social dynamics and the consequences for its citizens and for the wider world	Identification and problematisation of what Europe and the EU represents for its citizens and for the wider world	Analytical and interpretative skills to engage with current issues, notably the handling of issues related to multicultural society, turning perceived problems into feasible solutions and transferring this knowledge to relevant audiences
I. have demonstrated knowledge and understanding	b. Cultures and Societies	1. Thorough knowledge and understanding of the phenomena of multiculturalism, national and European identity, poli... (European) governance processes;	8. High level analysing and synthesising competency to identify and problematise ...	15. Ability to put theoretical knowledge in practice by offering context-based guidance and workable ... oaches with a high awareness of the ... e issues at stake;
	c. Texts and Contexts	2. Thorough (historical)... integration process in a... studied the most releva...		...of appropriate management skills, such as ...sion-making, motivation to work effectively ... l / transnational setting;
III. ... bility to ... kn... and ha... exity, an... e ju...	d. Theories and Concepts	3. Thorough knowledge... theoretical and metho... particular constructivis... allow for independent... involved;		...n and knowledge of successfully planning, ...anaging complicated medium-term ...cts in a transnational and multicultural ...
	e. Initiative and Creativity	4. Thorough knowledge and understanding of different regional and national perceptions of the European integration process from a cultural-social perspective including awareness of the push and pull factors in the	11. Ability to independently prepare and write project applications by identifying the project's contribution to existing knowledge and experience, the most effective approach to and	18. Ability to identify a suitable work placement or research project as a preparation for the occupational field meeting the profile of the programme; outline a related work plan and participate in placement or project successfully;
	f. Interdiscipli...			...he ability to accept ...on the basis of a ...n identity and related
IV. can communicate ...	g. Communica... ...(e.g. libraries, computerised material, bibliographical material);		...audiences;	...ork and taking the ...es and discussions in
V. have the learning skills	h. Professional Development	7. Having insight into one's personal strengths, weaknesses, and abilities, and the capacity to select the learning methods necessary for the chosen profession or range of professions.	14. Ability to apply different methods and strategies of study to different tasks and to undertake independent study.	21. Capability to learn from and respond accurately to unexpected developments, taking these into account to accommodate and develop suitable strategies accordingly.

**An Example**

Knowledge

Skills

Wider Competences

Dimensions

Key Descriptors of a single academic field on one page (based on a merger of the EQF for LLL and the QF for the EHEA)

Formulate descriptors as learning outcomes: use active verbs in a consistent way, but also define level in terms of scope and complexity (a verb is an insufficient indicator for identifying the level)

PROGRESSION OF LEARNING:
knowledge – skills –application - contribution

LEVEL / GROWING COMPLEXITY

KNOWLEDGE   SKILLS   WIDER COMPETENCES
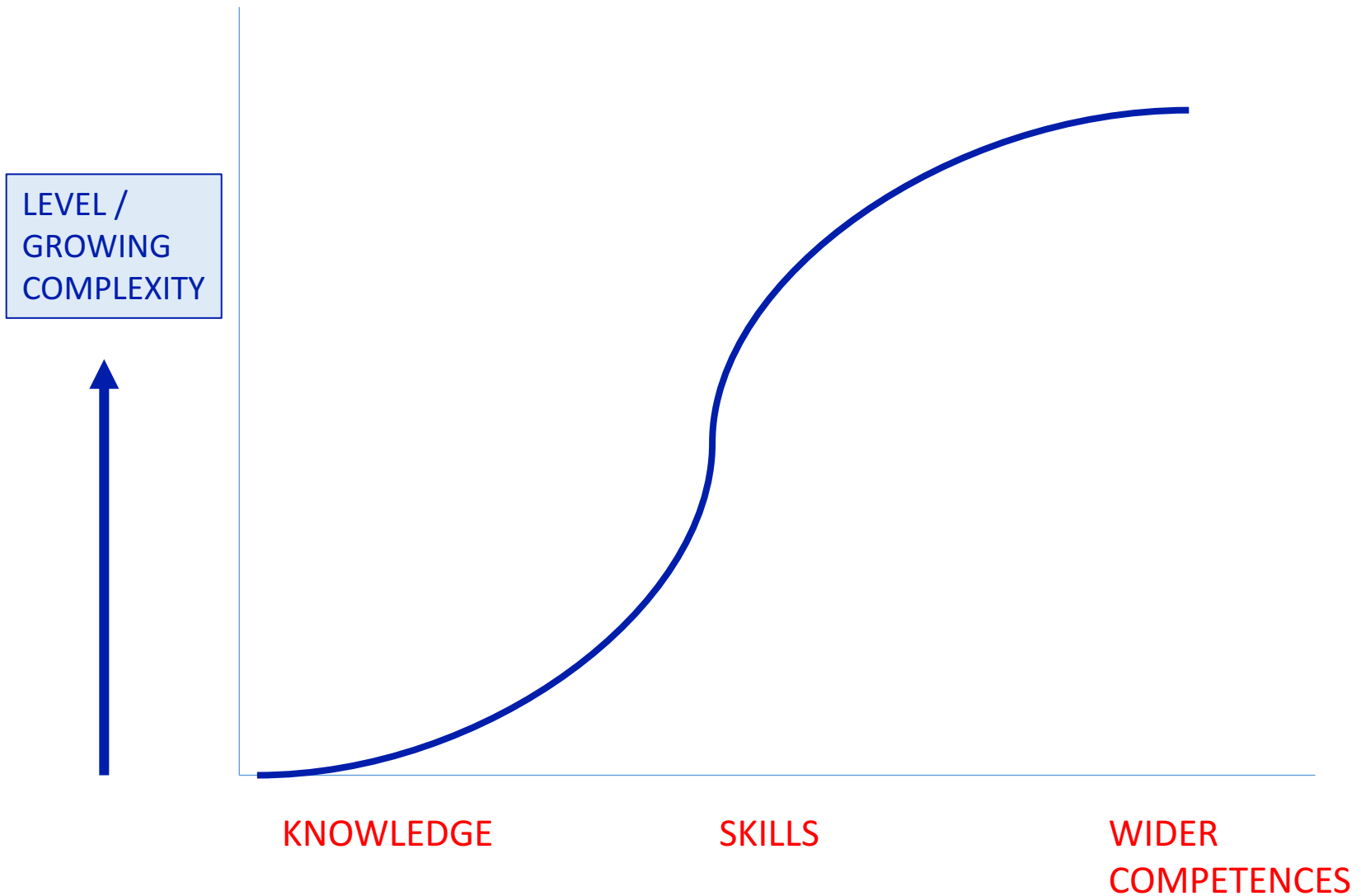
CALOHEE ASSESSMENT MODEL

Framework acknowledges different missions, profiles and cultural contexts of Higher Education institutions

PARAMETERS / CATEGORIES

A dimension indicates a constructive key element which defines a subject area; each subject area is based on a multiple of dimensions

EQF:	Knowledge		Skill	Wider Competences
QF for EHEA	Knowledge: theory and methodology	Application knowledge and skills	Employability	Civic, social and cultural engagement

DIMENSIONS

Common body of knowledge, skills and wider competences for the *subject area*

DIMENSIONS
1
2
3
4
ETC.

Core Competences (Subject Specific and Generic) / Learning Outcomes

Assessment Frameworks based on parameters and dimensions

Diagnostic assessments inform stakeholders about meeting agreed quality requirements and the mission of the programme

DIAGNOSTIC ASSESSMENTS

Linking Learning, Teaching and Assessment to sets of broken-down Subject Area Competences / Learning Outcomes

Dimension	Knowledge descriptor	Skills descriptor	(Wider) Competence descriptor
1.	Sub-descriptor 1-1	Sub-descriptor 1-2	Sub-descriptor 1-3
2.	Sub-descriptor 2-1	Sub-descriptor 2-2	Sub-descriptor 2-3
3.	Sub-descriptor 3-1	Sub-descriptor 3-2	Sub-descriptor 3-3
4.	Sub-descriptor 4-1	Sub-descriptor 4-2	Sub-descriptor 4-3
5.	Sub-descriptor 5-1	Sub-descriptor 5-2	Sub-descriptor 5-3

A dimension indicates a constructive key element which defines a subject area; each subject area is based on a multiple of dimensions

The totality of dimensions reflects a detailed description of what a programme can contain, leading to learning alignment: Learning Outcomes, Activities and Assessments

Dimension	Knowledge descriptor	Skills descriptor	(Wider) Competence descriptor
1.	Sub-descriptor 1-1	Sub-descriptor 1-2	Sub-descriptor 1-3
1a	Assessment approach	Assessment approach	Assessment approach
1b	Learning approach	Learning approach	Learning approach
1c	Teaching approach	Teaching approach	Teaching approach
2.	Sub-descriptor 2-1	Sub-descriptor 2-2	Sub-descriptor 3-3

Any suggestions for improvement / simplification ?

Four parameters (based on analysis of present developments and recent literature):

- Societies and Cultures: Interculturalism and conflict management
- Processes of information and communication
- Processes of governance and decision making
- Ethics, norms, values and professional standards

CALOHEE framework for Civic, social and cultural engagement

	Knowledge	Skill	Wider competences
1.	Demonstrate critical understanding of differences in and between societies and cultures (frames)	Identify, describe and analyse issues in and between societies and cultures	Demonstrate engagement by developing scenarios and alternatives for identifying best practices and interventions in the case of tensions and conflicts
2.	Demonstrate critical understanding of the processes of information and communication	Review and judge (mis)use of sources, data, evidence, qualities, intentions and transparency and expert opinions	Active contribution to societal debates using reliable data and information sources and informed judgements
3.	Demonstrate critical understanding of the processes of governance and decision making	Apply and support agreed governing principles, norms and values regarding fairness, transparency, accountability, democracy and relevance in policy making processes	Active contribution to and with local and (inter) national communities, community groups, (political) organisations and pressure groups respecting agreed principles, norms and values
4.	Demonstrate critical understanding of general ethical principles, norms and values and professional standards	Understand and apply the processes of decision making and the consequences of actions taking into account principles, norms, values and standards both from a personal and a	Active contribution to upholding, promoting and defending general ethical principles, norms, values and professional standards in governance, communication and cultural interaction.

CALOHEE framework for civic, social and cultural engagement

Dimension/descriptor/ sub-dimensions	Knowledge descriptor	Skills descriptor	(Wider) Competences descriptor
Dimension 1: Societies and Cultures: Interculturalism and conflict management	*Demonstrate critical understanding of differences in and between societies and cultures (frames)*	*Identify, describe and analyse issues in and between societies and cultures*	*Demonstrate engagement by developing scenarios and alternatives for identifying best practices and interventions in the case of tensions and conflicts*
Sub-dimension 1			
Sub-dimension 2			
Sub-dimension 3			
Sub-dimension 4			
Sub-dimension 5			

Next steps:
➢ Adding sub-dimensions to four dimensions to offer more precise descriptors
➢ Integrating framework descriptors in subject area conceptual frameworks
➢ Identifying gaps
➢ Updating and finalising *CALOHEE framework for civic, social and cultural engagement* as a reference for all academic fields

Next steps

Frameworks offer measurable indicators for developing assessment items / assessment banks for diagnostic assessments

Conditions for successful trans-institutional and transnational assessments:

- Should do justice to individual academic domains / subject areas

- Should allow for assessing understanding and application

- Should be multi-dimensional: covering all 4 parameters / categories of the assessment model, as well as the identified dimensions for each subject area involved

- Should allow for differentiation in the weighting of sub-scores for different types of degree programs (research driven / applied, etc.) following the multi-dimensional approach; according to transparent and agreed criteria

- Should be machine based, but go (far) beyond multiple choice (making use of algorithms ?)

  - Allow for testing profound knowledge and understanding and high level skills
  - Allow for testing critical awareness and thinking, analyzing (text interpretation) and composing

CALOHEE-WEBSITE:
https://www.calohee.eu