

Tuning Methodology

Tuning ASEAN 2016-2019

Project leader: University Deusto

Pr P. Beneitone, Dr I. Dyukarev

Project leader: University Deusto - Spain -

European partners

Portugal

Belgium

Netherlands

France (UM)

Italia

ASEAN partners

Thailand (3 Universities)

Cambodia (2 Universities)

Indonesia (3 Universities)

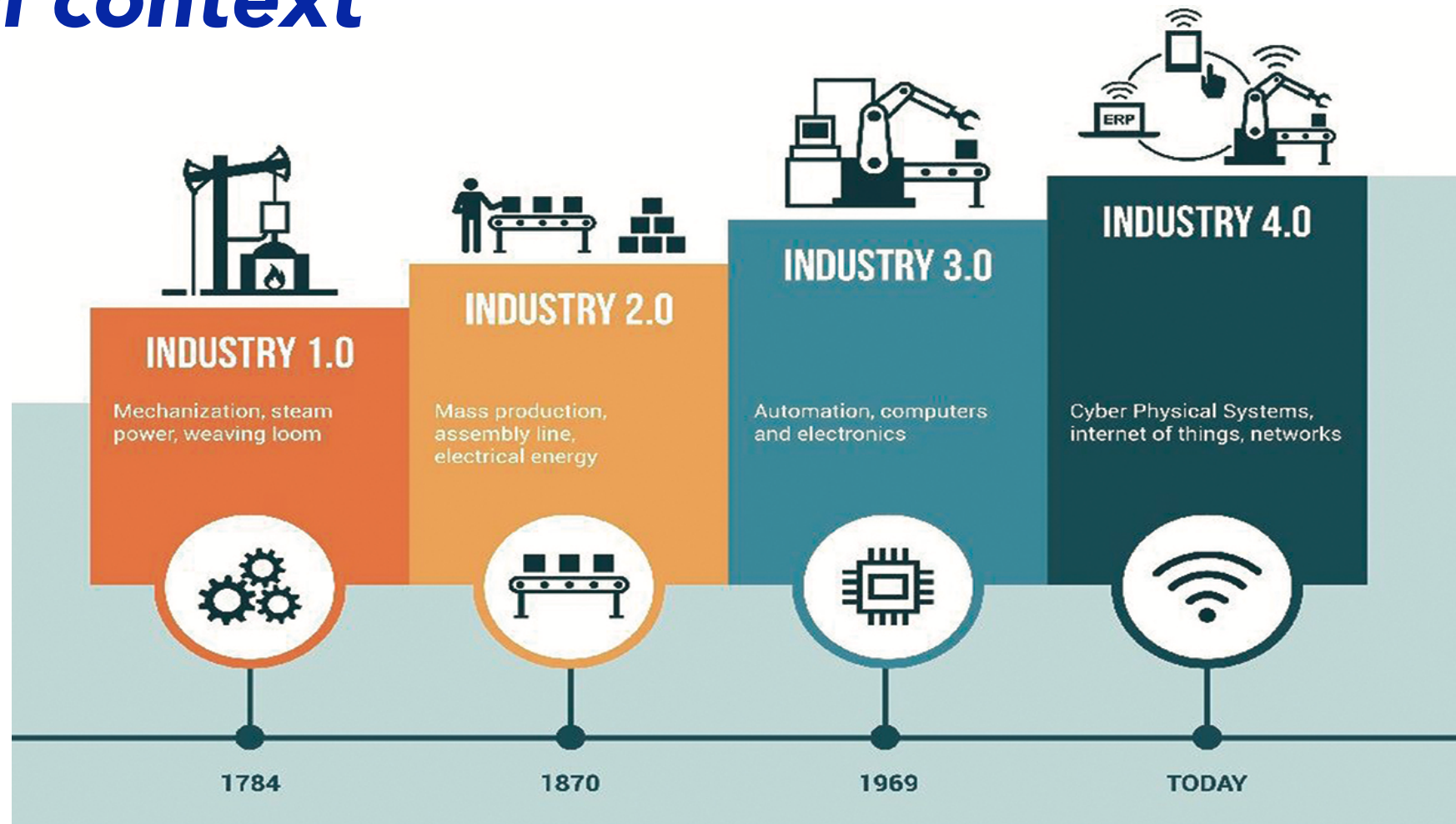
Malaysia (2 Universities)

Mayanmar (2 Universities)

Philippines (5 Universities)

Vietnam (3 Universities)

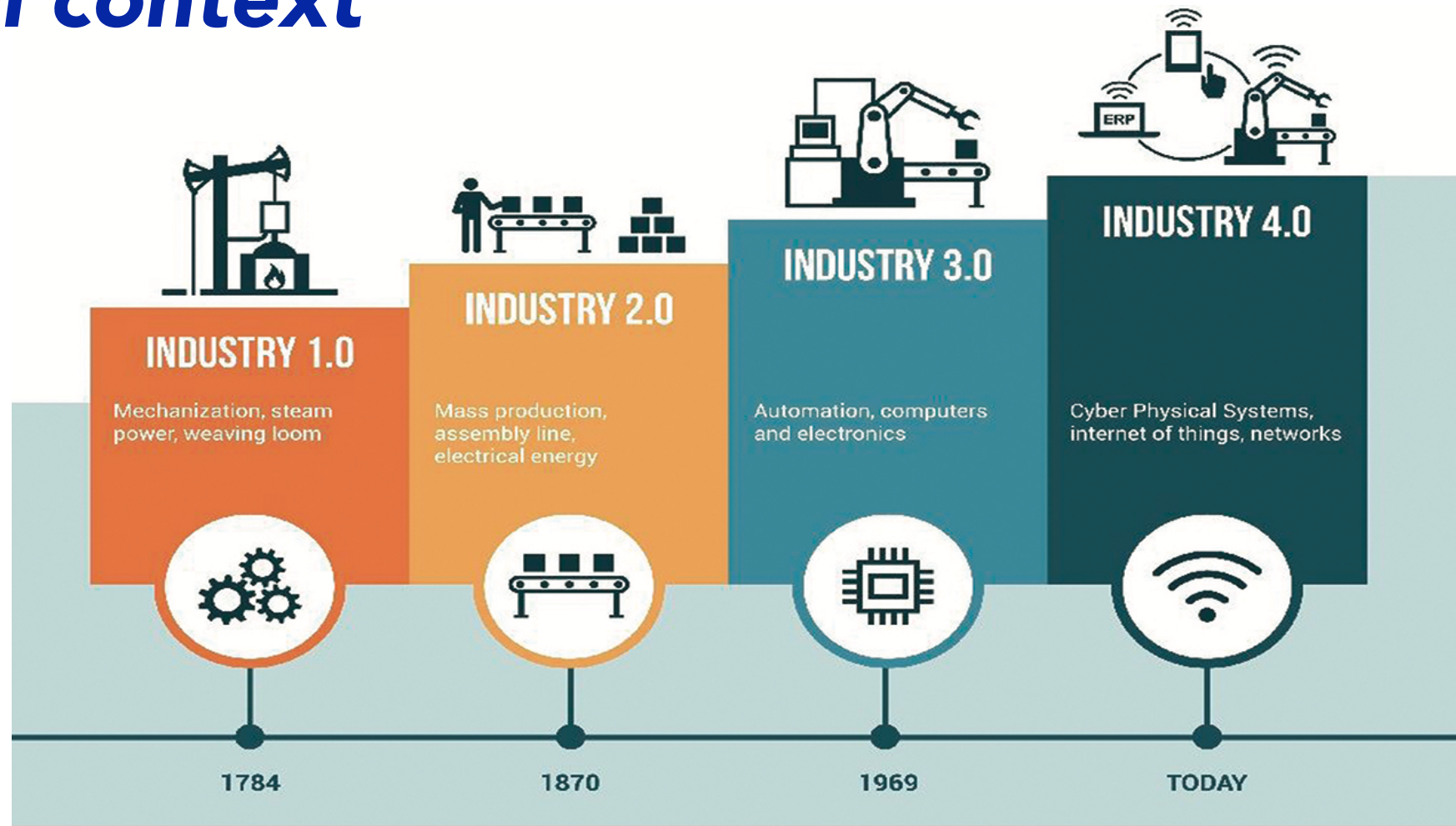
General context



A shift of paradigm:

- From a need of specialized knowledge to a need of multi-specialized skills
- From regional skills to a "worldwide" skills

General context



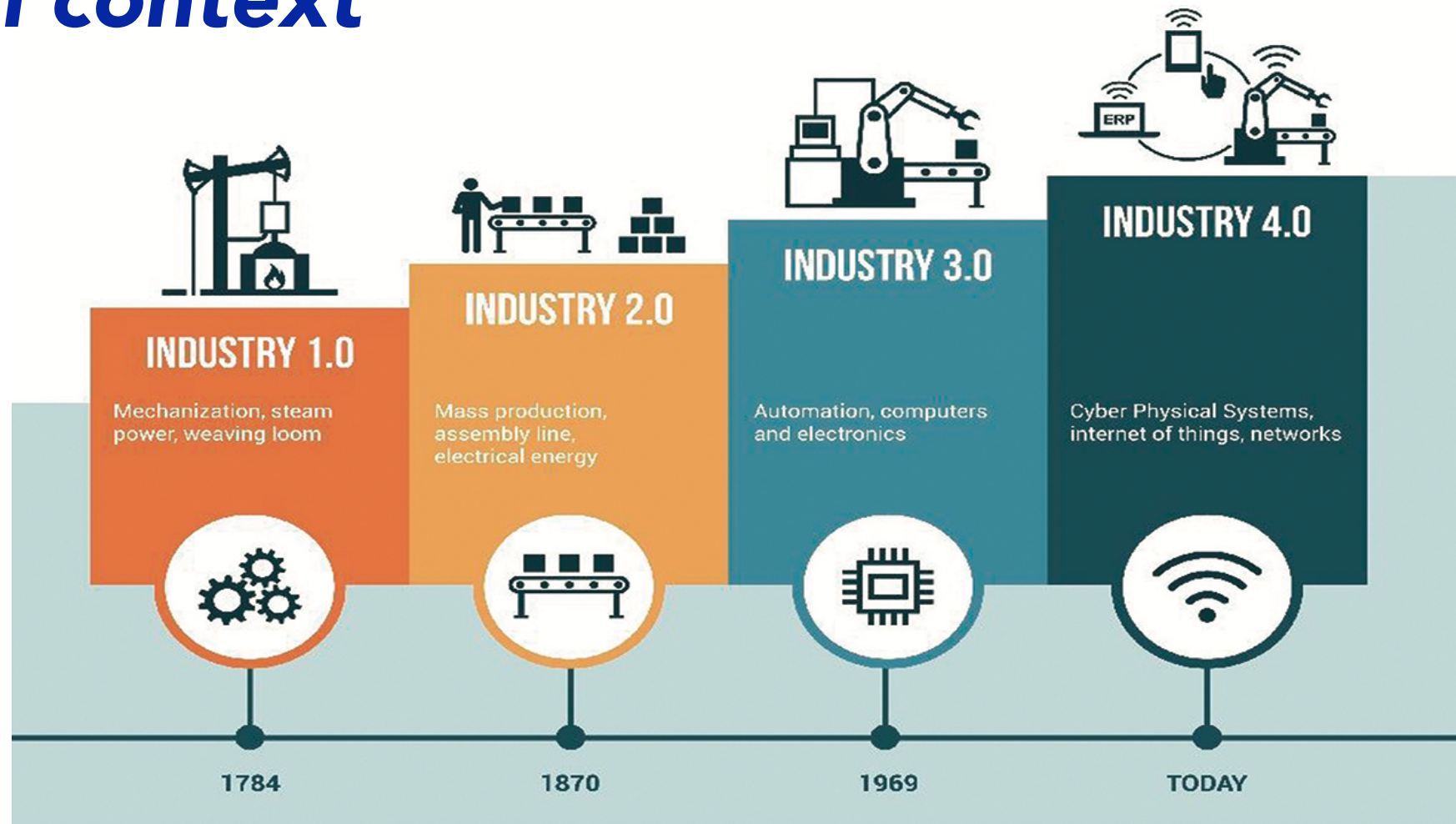
A shift of paradigm:

- From a need of specialized knowledge to a need of multi-specialized skills
- From regional skills to a "worldwide" skills

Examples of skills —> The 21 century skills (<https://www.aeseducation.com/>)

Critical thinking, Creativity, Collaboration, Communication, Information literacy, Media literacy, Technology literacy, Flexibility, Leadership, Initiative, Productivity, Social skills

General context



A shift of paradigm:

- From a need of specialized knowledge to a need of multi-specialized skills
- From regional skills to a "worldwide" skills

Examples of skills —> The 21 century skills (<https://www.aeseducation.com/>)

Critical thinking, Creativity, Collaboration, Communication, Information literacy, Media literacy, Technology literacy, Flexibility, Leadership, Initiative, Productivity, Social skills

—————> **We need a common language**

General objective

- To promote regional and international cooperation between SEA and EU universities.
- To contribute to and support the harmonisation process within the South East Asia region through building of a framework of comparable, compatible and transparent degree programme

General objective

- To promote regional and international cooperation between SEA and EU universities.
- To contribute to and support the harmonisation process within the South East Asia region through building of a framework of comparable, compatible and transparent degree programme

Some “Good practice” rules

- A bottom up approach
- Design from subject level (e.g. medicine \neq mathematics)
- Respect of institution autonomies and rules
- Taking into account regional needs

A conceptual Framework

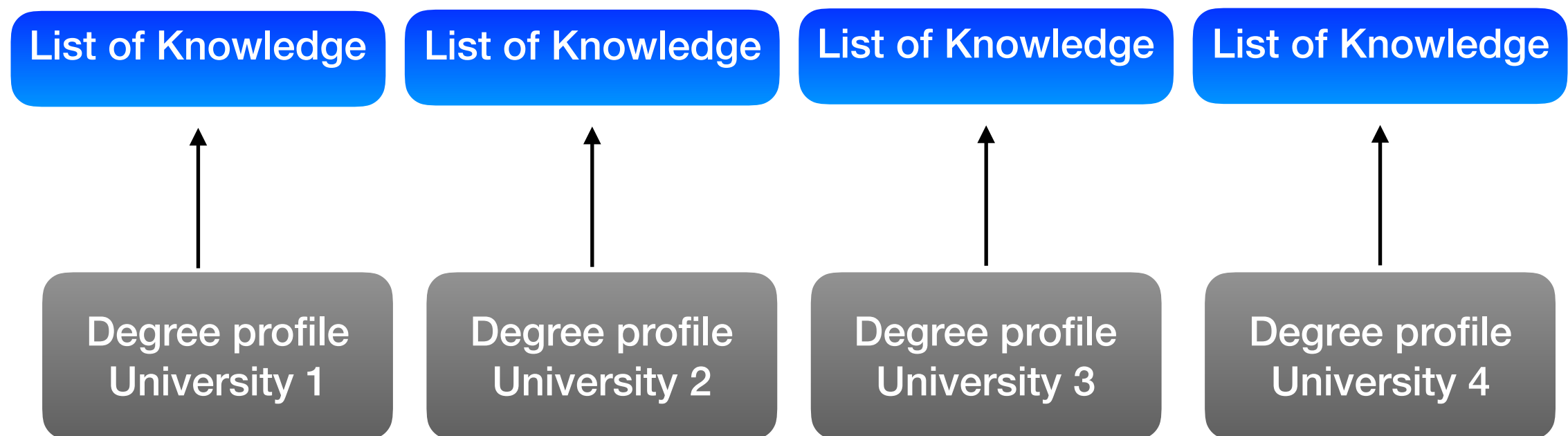
Degree profile
University 1

Degree profile
University 2

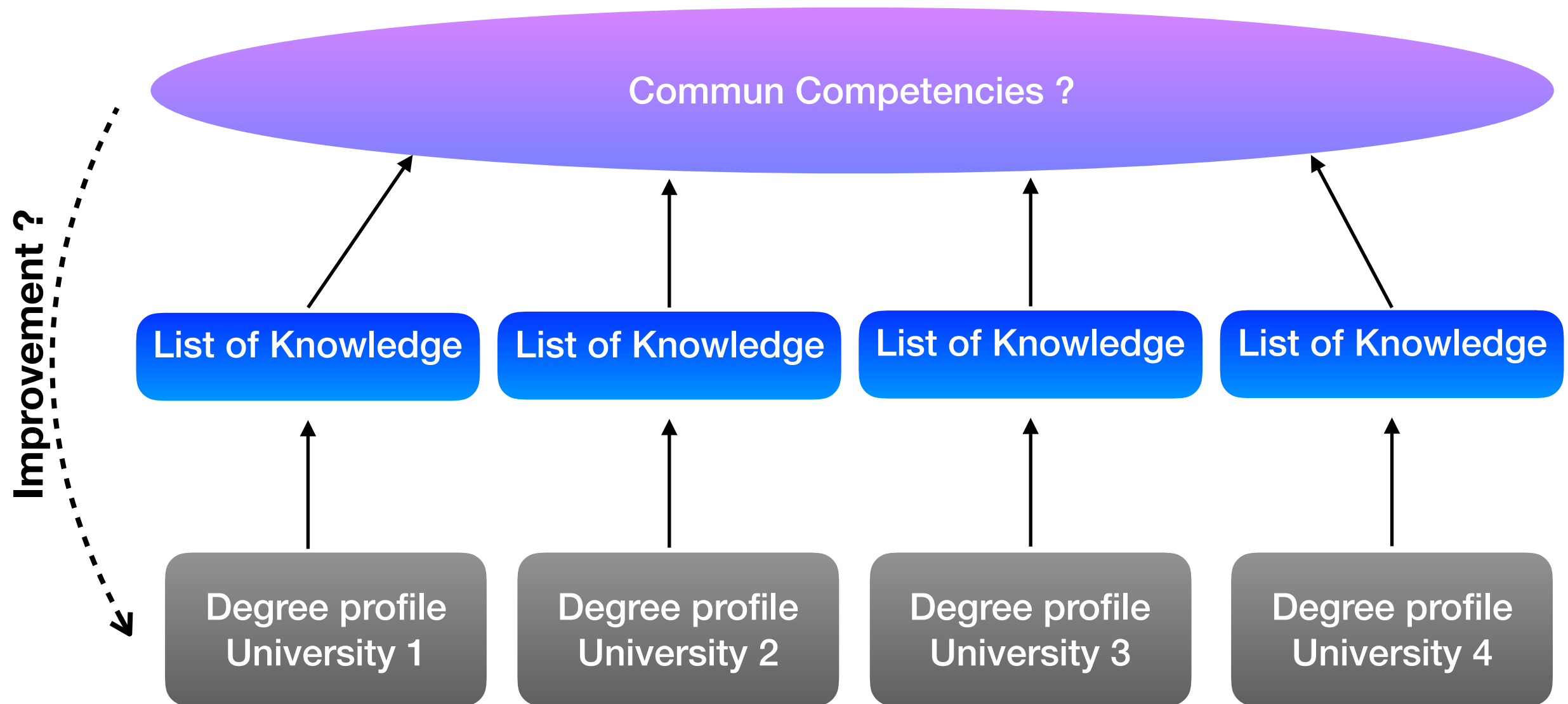
Degree profile
University 3

Degree profile
University 4

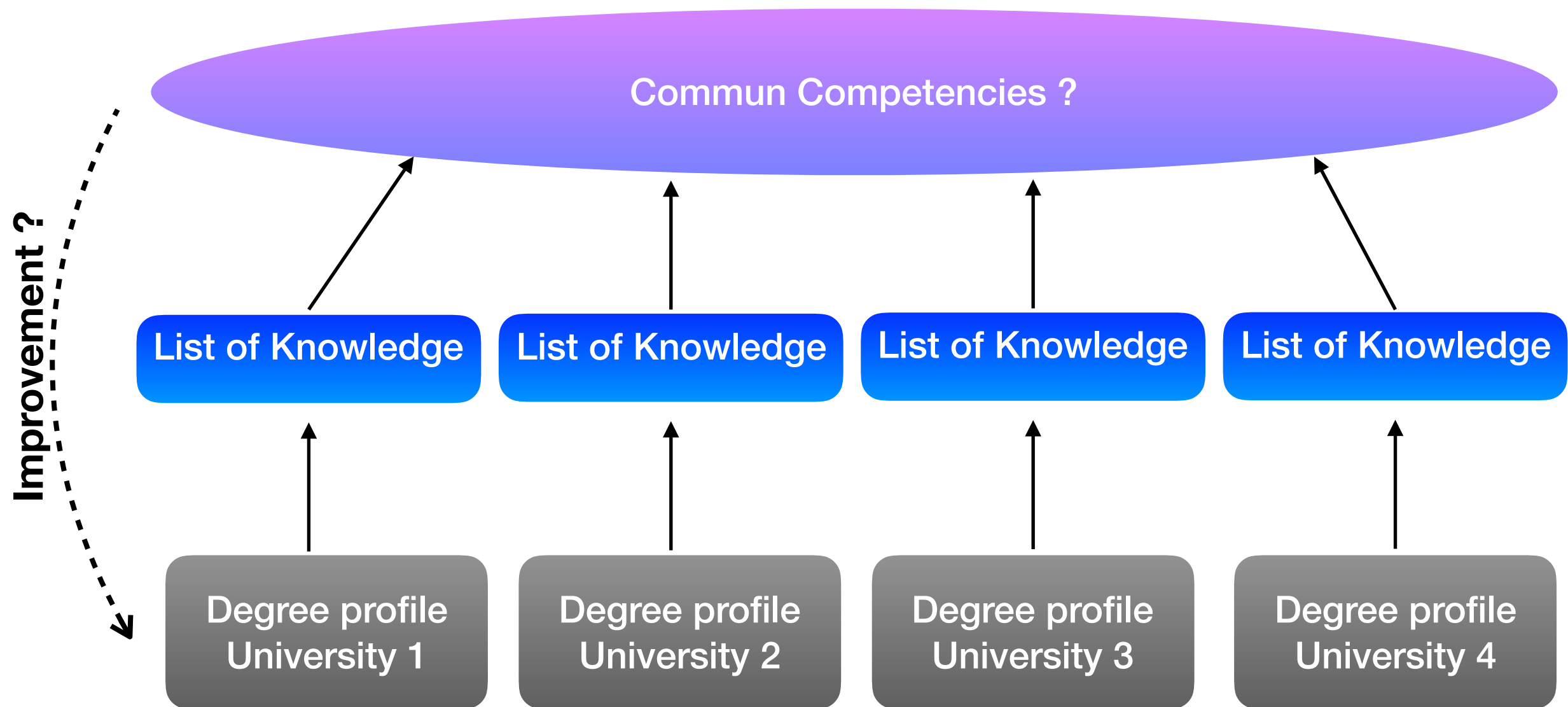
A conceptual Framework



A conceptual Framework



A conceptual Framework



→ ***Expected result: A New Degree Program***

- ***Student-centered***
- ***Competence-based***
- ***Relevant to Market***
- ***Worldwide recognition***

Now, in practical terms...

3 subjects areas: Civil Engineering / Education / Medicine

Now, in practical terms...

3 subjects areas: Civil Engineering / Education / Medicine

Year 1: Construction of competencies list for each groups

The question is: which competencies a student in CE, M, E must have?

Now, in practical terms...

3 subjects areas: *Civil Engineering / Education / Medicine*

Year 1: Construction of competencies list for each groups

The question is: which competencies a student in CE, M, E must have?



A fascinating result

- 1) A specific list of competencies for each discipline
- 2) A list of general competencies commun to each area !

Exemple for CE group:

- Specific:
- Ability to show strong knowledge in science and mathematics
 - Ability to interpret engineering drawings
 - Ability to utilise relevant design codes and regulations
 - ... **A total of 14 Specific skills**

- General:
- Ability to communicate clearly and effectively
 - Ability to uphold professional, moral and ethical values
 - Ability to work collaboratively and effectively in diverse contexts
 - ... **A total of 13 Specific skills**

Now, in practical terms...

3 subjects areas: *Civil Engineering / Education / Medicine*

Year 1: Construction of competencies list for each groups

The question is: which competencies a student in CE, M, E must have?

→ A fascinating result

- 1) A specific list of competencies for each discipline
- 2) A list of general competencies commun to each area !

Exemple for CE group:

- Specific:
- Ability to show strong knowledge in science and mathematics
 - Ability to interpret engineering drawings
 - Ability to utilise relevant design codes and regulations
 - ... **A total of 14 Specific skills**

- General:
- Ability to communicate clearly and effectively
 - Ability to uphold professional, moral and ethical values
 - Ability to work collaboratively and effectively in diverse contexts
 - ... **A total of 13 Specific skills** Nearly commun to each area !

Now, in practical terms...

3 subjects areas: *Civil Engineering / Education / Medicine*

Year 1: Construction of competencies list for each groups

The question is: which competencies a student in CE, M, E must have?

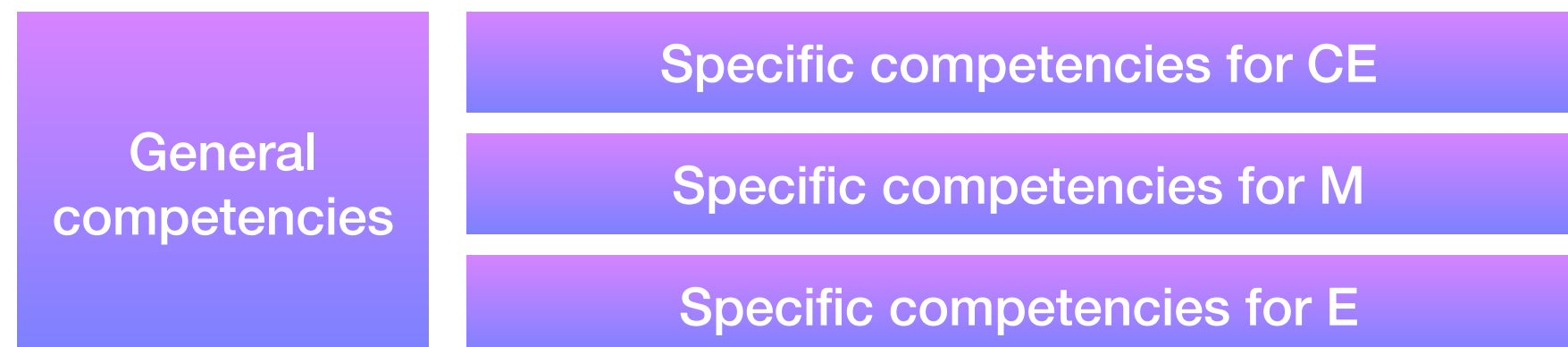
A fascinating result

- 1) A specific list of competencies for each discipline
- 2) A list of general competencies commun to each area !

Exemple for CE group:

- Specific:
- Ability to show strong knowledge in science and mathematics
 - Ability to interpret engineering drawings
 - Ability to utilise relevant design codes and regulations
 - ... **A total of 14 Specific skills**

- General:
- Ability to communicate clearly and effectively
 - Ability to uphold professional, moral and ethical values
 - Ability to work collaboratively and effectively in diverse contexts
 - ... **A total of 13 Specific skills**



Now, in practical terms...

Year 2: Stabilisation of the list



A huge consultation process involving:
- Graduate - Academics - Employers - Students
in all universities in all country

For each competencies, the three variables were tested:

- Level importance***
- Level of Achievement***
- Ranking***

Now, in practical terms...

Year 2: Stabilisation of the list



A huge consultation process involving:
- Graduate - Academics - Employers - Students
in all universities in all country

For each competencies, the three variables were tested:

- Level importance***
- Level of Achievement***
- Ranking***



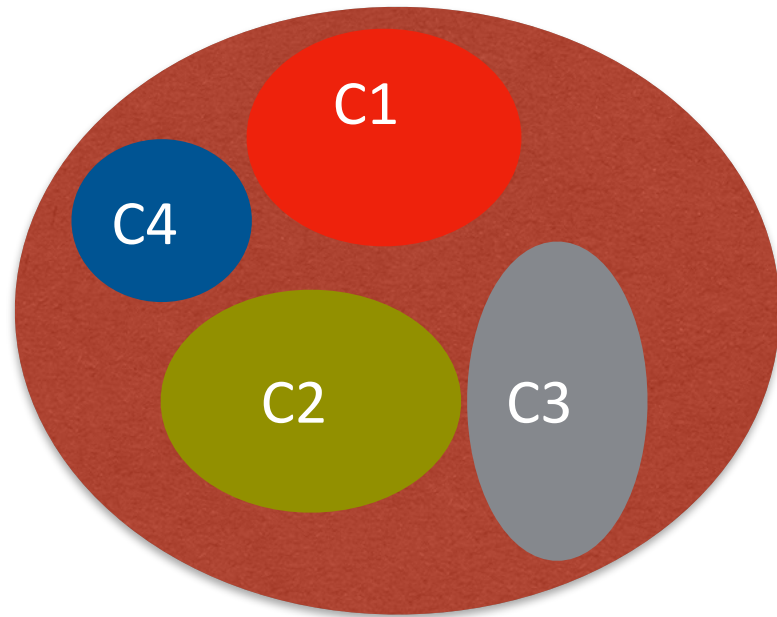
- 1) Improvement of the list of competencies***
- 2) How to link competencies and knowledges?***
- 3) How to improve student competencies?***

Now, in practical terms...

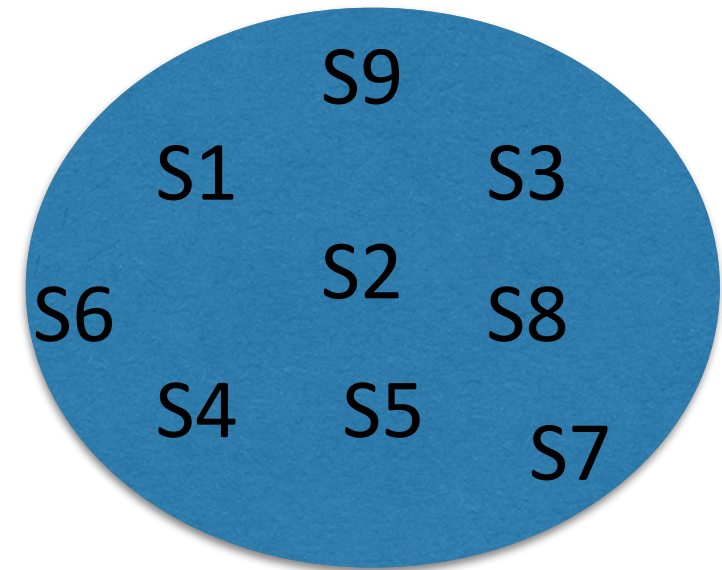
Year 3: Competencies vs Knowledges. Improvement of Degree Profiles

Now, in practical terms...

Year 3: Competencies vs Knowledges. Improvement of Degree Profiles



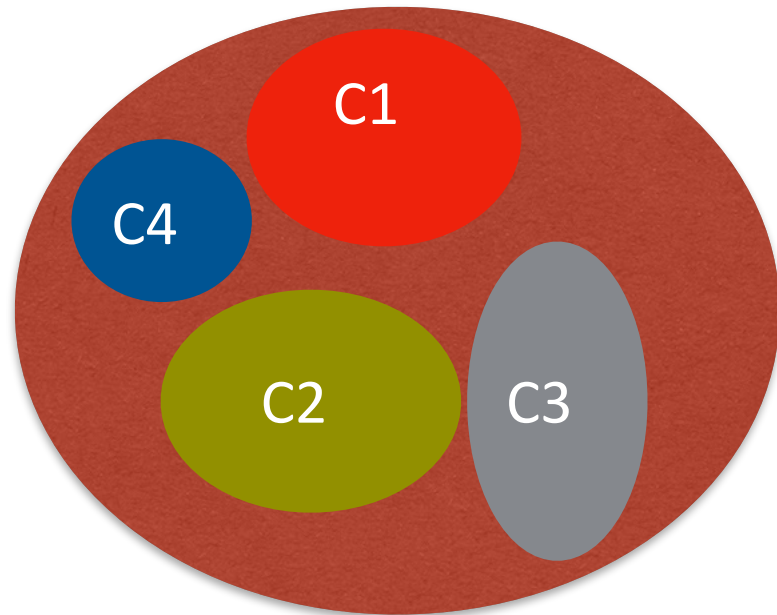
List of competencies



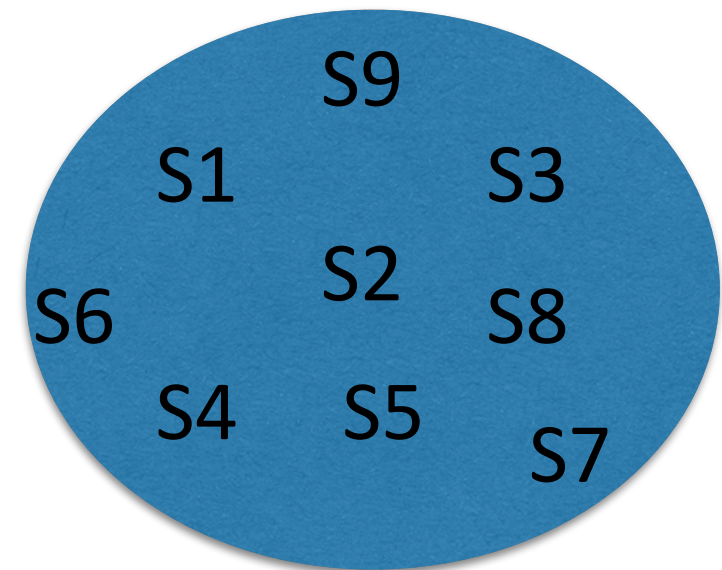
List of Knowledges

Now, in practical terms...

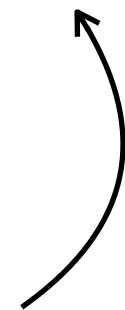
Year 3: Competencies vs Knowledges. Improvement of Degree Profiles



List of competencies



List of Knowledges

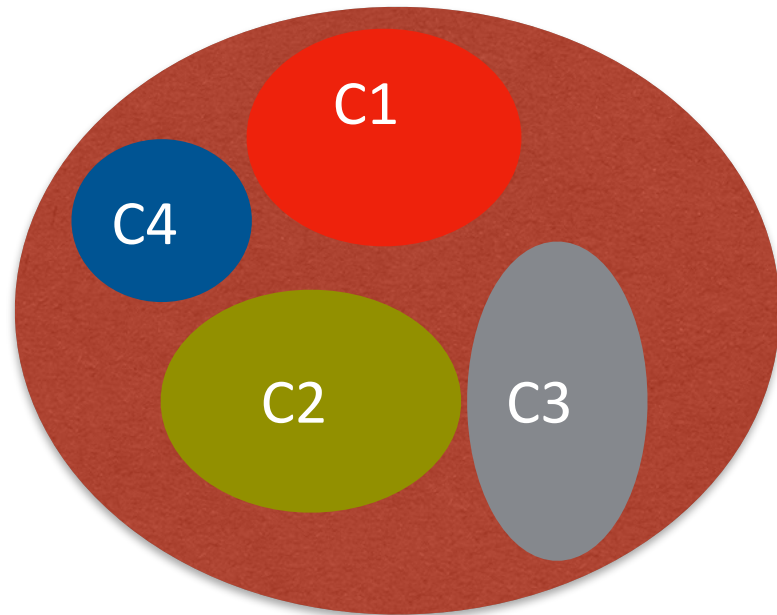


Bachelor/Master Program

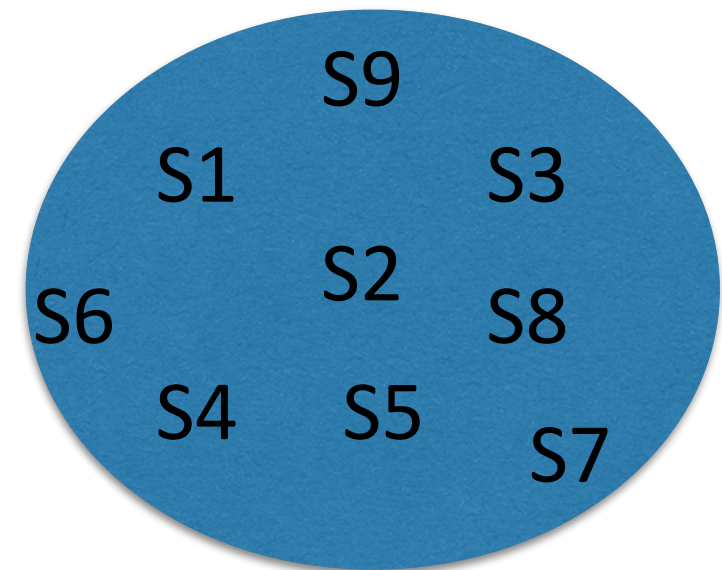
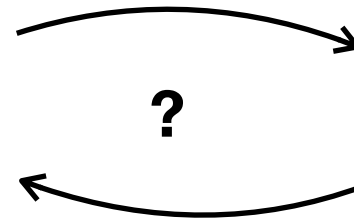
(S1,S2,S3)	=	Teaching Unit 1
(S4,S5,S6)	=	Teaching Unit 2
(S7,S8,S9)	=	Teaching Unit 2

Now, in practical terms...

Year 3: Competencies vs Knowledges. Improvement of Degree Profiles



List of competencies



List of Knowledges

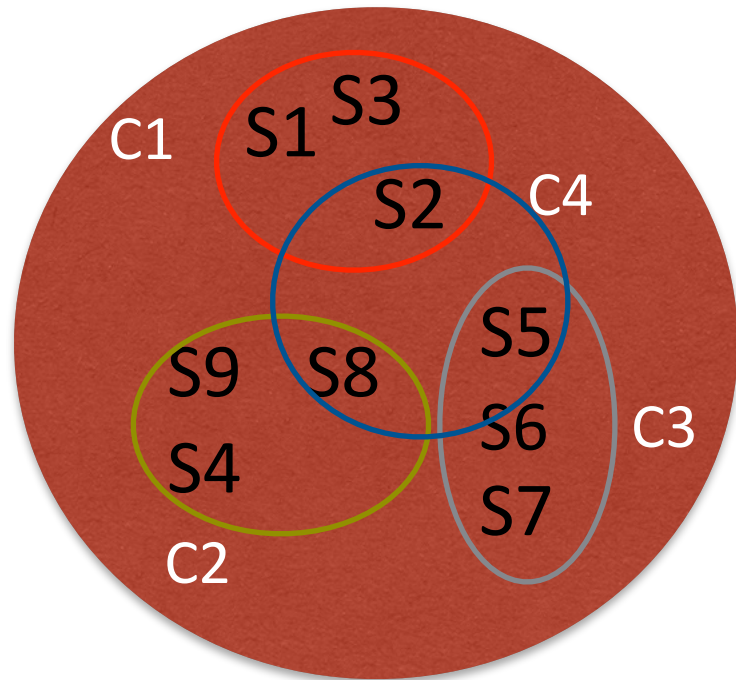


Bachelor/Master Program

(S1,S2,S3)	=	Teaching Unit 1
(S4,S5,S6)	=	Teaching Unit 2
(S7,S8,S9)	=	Teaching Unit 2

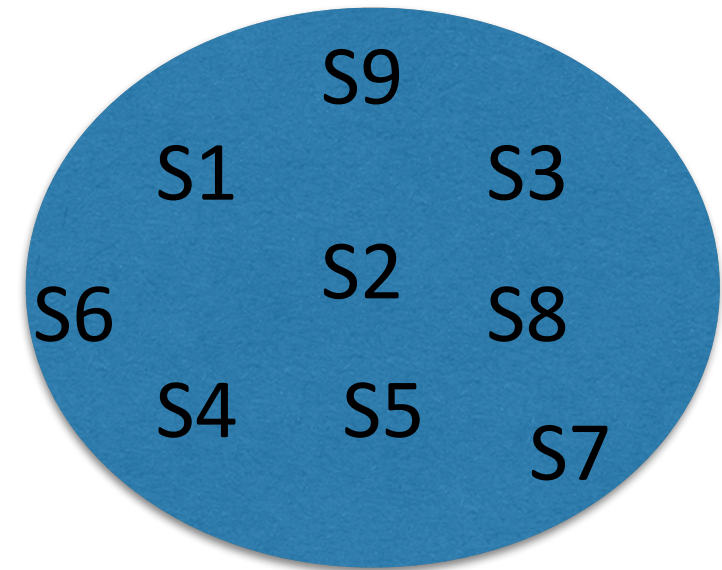
Now, in practical terms...

Year 3: Competencies vs Knowledges. Improvement of Degree Profiles



List of competencies

Competencies seen as
agrégation of knowledges



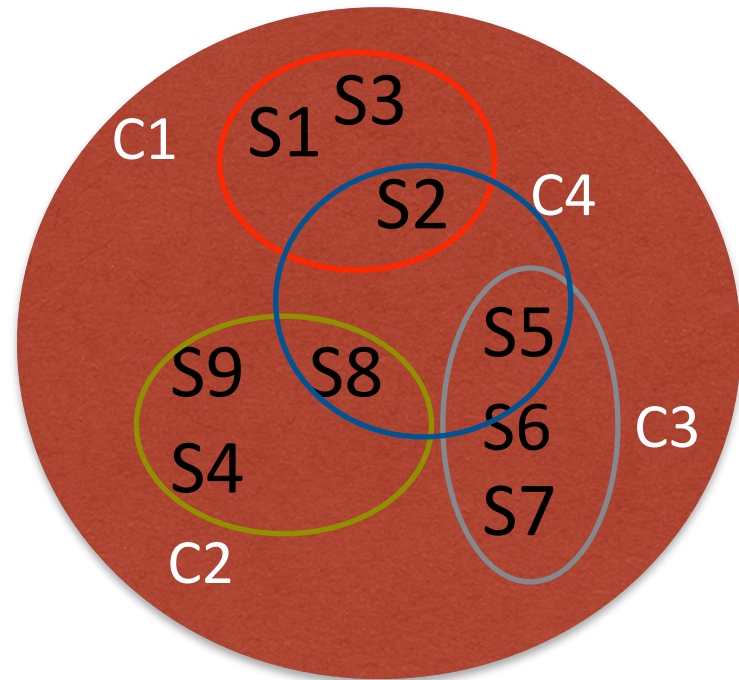
List of Knowledges

Bachelor/Master Program

(S1,S2,S3)	=	Teaching Unit 1
(S4,S5,S6)	=	Teaching Unit 2
(S7,S8,S9)	=	Teaching Unit 2

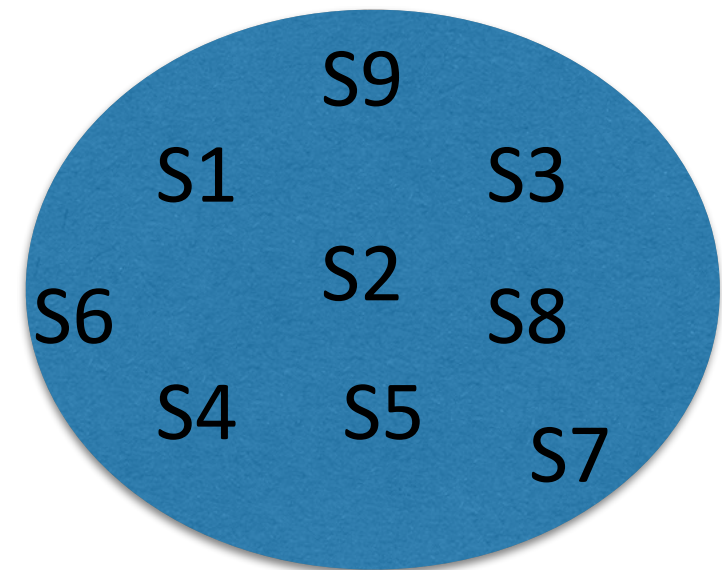
Now, in practical terms...

Year 3: Competencies vs Knowledges. Improvement of Degree Profiles



List of competencies

Competencies seen as
agrégation of knowledges



List of Knowledges

Link between
teaching unit and Competencies !

Bachelor/Master Program

(S1,S2,S3)	=	Teaching Unit 1
(S4,S5,S6)	=	Teaching Unit 2
(S7,S8,S9)	=	Teaching Unit 2

Now, in practical terms...

Year 3: Competencies vs Knowledges. Improvement of Degree Profiles

 **Expected result**

Bachelor or Master Program

	Cs1	Cs2	Cs3	...	Cs10	Cg1	Cg2	...	Cg13	Total
TU 1		X	X			X				3
TU 2	X			X			X		X	3
TU 3			X	X	X		X	X		5
TU 4		X			X	X			X	3
...										
...										
TU 30		x								1
Total	1	5	10	3	7	9	9	11	8	

- How often a competencies is represented?

Now, in practical terms...

Year 3: Competencies vs Knowledges. Improvement of Degree Profiles

→ Expected result

Bachelor or Master Program

	Cs1	Cs2	Cs3	...	Cs10	Cg1	Cg2	...	Cg13	Total
TU 1		X	X			X				3
TU 2	X			X			X		X	4
TU 3			X	X	X		X	X		5
TU 4		X			X	X			X	4
...										
...										
TU 30		X								1
Total	1	5	10	3	7	9	9	11	8	

- How often a competencies is represented?

→ Pedagogic innovation
Improvement of program

Now, in practical terms...

Year 3: Competencies vs Knowledges. Improvement of Degree Profiles

→ Expected result

Bachelor or Master Program

	Cs1	Cs2	Cs3	...	Cs10	Cg1	Cg2	...	Cg13	Total
TU 1		X	X			X				3
TU 2	X			X			X		X	4
TU 3			X	X	X		X	X		5
TU 4		X			X	X			X	4
...										
...										
TU 30		X								1
Total	1	5	10	3	7	9	9	11	8	

- *How often a competencies is represented?*

→ Pedagogic innovation
Improvement of program

→ To go further:
Quantifying progressiveness in learning
Level of competency required?
Student workload?

A world wide convergence...

The group of Bilbao have applied this methodology
→ in different parts of the world



<http://www.tuningacademy.org>

A world wide convergence...

→ The group of Bilbao have applied this methodology
→ in different parts of the world



<http://www.tuningacademy.org>

→ A fascinating results:

- General competencies nearly identical for all part of the world !
- Specific competencies nearly identical in each specific area !

→ In Europe, all this framework is encoded under the term
"Bologna Accords"

A world wide convergence...

→ The group of Bilbao have applied this methodology
→ in different parts of the world



<http://www.tuningacademy.org>

Thank you

→ A fascinating results:

- General competencies nearly identical for all part of the world !
- Specific competencies nearly identical in each specific area !

→ In Europe, all this framework is encoded under the term
"Bologna Accords"