Development of resources and distance learning module on urban agriculture entrepreneurship

E. Geoffriau, T. Coisnon, L. Vidal-Beaudet, B. Plottu, P. Cannavo, G. Galopin, E. Chantoiseau, P.E. Bournet, V. Beaujouan, D. Rousselière, V. Bouvier, H. Daniel – Agrocampus Ouest Angers

R. Kahane – CIRAD / Agreenium Montpellier

M. Yvergniaux & A. Gautier – Vegepolys Angers

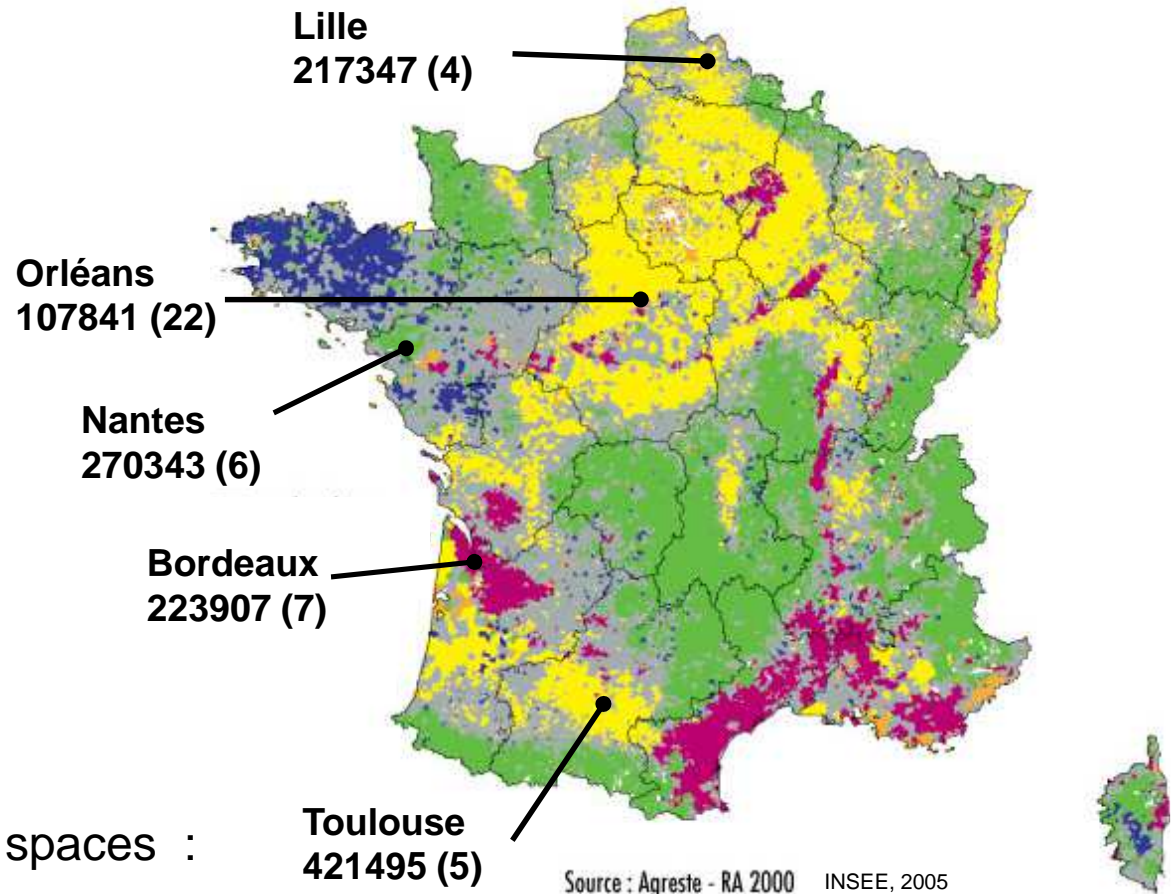F. Orsini, E. Sanyè-Mengual, M. Accorsi, G. Gianquinto – University of Bologna

B. Poelling, W. Lorleberg - South-Westphalia University of Applied Sciences   Soest

F. Hoekstra, M. Dubbeling, H. Renting – RUAF

+ SME: Horticity, MammutFilm, Croissance, Hei-tro

Urban green & horticulture
at Agrocampus Ouest Angers

AGRO CAMPUS OUEST

- M1 Periurban horticulture :
since 2000
same city every 5 years

Lille
217347 (4)

Orléans
107841 (22)

Nantes
270343 (6)

Bordeaux
223907 (7)

Toulouse
421495 (5)

Source : Agreste - RA 2000   INSEE, 2005

- M2 Engineering of urban green spaces :
    urban plant innovations

- M2 Engineering of horticultural productions :
    periurban production and circular economy

- Distance learning : Urban Green Train

**URBAN GREEN TRAIN
URBAN GReen Education for ENTeRprising
Agricultural INnovation**

AIM: to encourage pioneering business oriented initiatives on urban agriculture based on knowledge exchange, mutual cooperation and innovation among SMEs, policy makers and Higher Education Institutions.

GENERAL OBJECTIVE : strengthen the knowledge triangle between Education, Research and Business in the field of urban agriculture (UA)

- To raise awareness of potential employers and entrepreneurs for green economy

- To build capacity of youth to create their own business

- To respond to the EU labour market need of highly qualified graduates in this field

- To innovate curricula and learning methods in Higher Education, expanding existing forms of University-Society-Business Cooperation and crossing sectoral, disciplinary and national boundaries

- To increase awareness on the role of new green enterprises in creating more sustainable cities from the side of local governments, consumers and other actors

Framework of the entire project

SETTING THE BASIS FOR A NEW MINDSET ON UA ECONOMY

I.O.1

- O1-A1 State of art of UA Entrepreneurship
- O1-A2 State of art of UA Entrepreneurial Education
- O1-A3 Training needs analysis
- O1-A4 Final Output development

STRUCTURING A PILOT COURSE

I.O.2

- O2-A1 Identification and creation of modules
- O2-A2 Educational resources development
- O2-A3 Testing and improvement of modules and resources

MODELING & RECOM-MENDATIONS FOR UA ENTERPRENEURSHIP CURRICULUM

I.O.3

- O3-A1 Reccomandations on validation and recognition of competences
- O3 –A2 Urban Green Train curriculum
- O3-A3 Creating and launching the EU CLUSTER on UA

Survey among UGT partners

Thematic orientation of proposed resources by UGT partners

Link with urban agri.		Link with UGT themes		
criteria	n	Theme	n	Cited disciplines
> 80%	25	Food and non-food production of UA	38	agronomy (35), ecology (12), economics (5), management (6), pest management (1), floriculture (1), physiology (1), sociology (1), landscaping (2), urban planning (1)
>50%	23	Ecology, environment, resource management	17	ecology (16), agronomy (10), management, (5) physiology (1)
<50%	16	Resilience, social inclusion and sustainability	7	sociology (5), communication (3), agronomy (3), management (2), geography (1)
No direct link but potential interest for UGT	30	Entrepreneurship, innovative business models and modes of financing	22	economics (21), management (12), communication (3), entrepreneurship (2)
		Societal needs, market analysis and value chain development	7	economics (6), management (2), business planning (1), market anaklysis (1)
		No proposed theme	3	
total	94	total	94	

A diversity of available resources addressing UAE

(logn 100)

Survey among UGT partners

Target audience of proposed resources by UGT partners

Education level		Audience type	
criteria	n	criteria	n
Bachelor 1	12	General public	2
Bachelor 2	14	Entrepreneurs	2
Bachelor 3	19	Professionnals	10
Master 1	21	Trainers	1
Master 2	16	Students	82
no indication	12	NGO staff	1
		Policy makers	1
		Support agencies	1
		Mix: students+professionnals	8
		Mix: students+public	1

Results from the state of the art

- ➤ 94 resources identified already developed from the partners
- ➤ 105 res. available from the partner countries and matching the themes
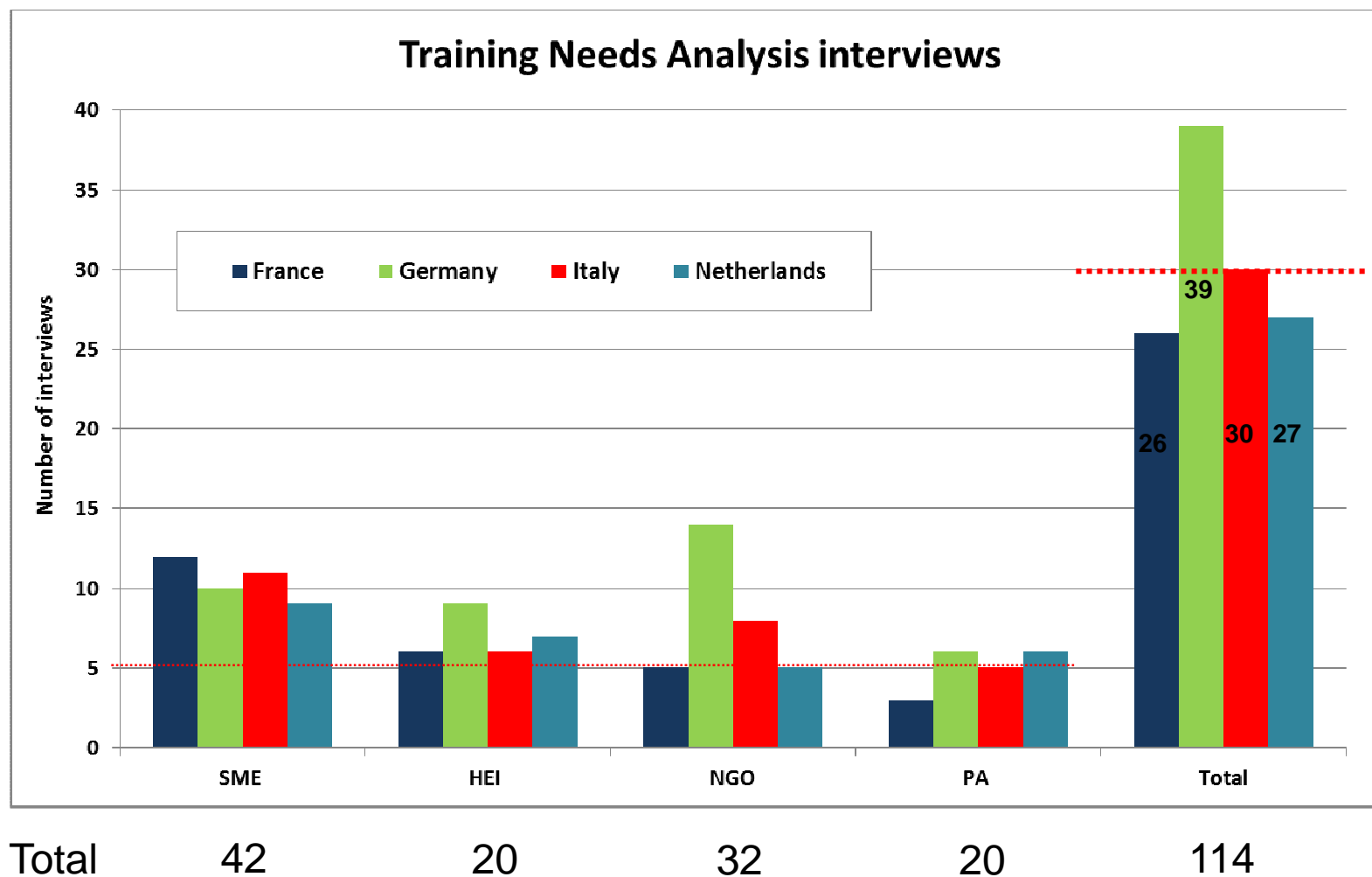- ➤ **Resource database available at http://www.urbangreentrain.eu**

Requirements

- o Strong involvement of relevant people/institutions
- o Definition of the disciplines and topics necessary for UA entrepreneurial education
- o Structure of the curriculum

Methodology

- ❑ Survey addressing 4 target groups:

  SME, HEI, NGO, PA (public authorities)
- ❑ Minimum settings:
  - 120 interviews in total
  - 30 interviews per country
  - 5 cases per national target group

Interview distribution

Training Needs Analysis interviews

| Total | 42 | 20 | 32 | 20 | 114 |

Would you be interested in UA enterpreneurial education?

	SME		HEI		NGO		PA		Total		
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes (%)
France	9	3	5	1	1	4	2	1	17	9	65
Germany	10	0	7	2	13	1	4	2	34	5	87
Italy	10	1	6	0	7	1	5	0	28	2	93
Netherlands	5	4	5	2	4	1	4	2	18	9	67
UGT countries	34	8	23	5	25	7	15	5	97	25	
UGT countries (%)	81	19	82	18	78	22	75	25	80	20	

- All target groups in all countries are interested (80 %)
- HEI and SME > 80 %
- Italy and Germany more than France and The Netherlands

Most important topics

Which are the most important topics to be taught for UA enterprises?

	in total	Plant production	Machinery / Engineering	Market research / Marketing / Trading	Project management / planning	Business Planning, Administration, Finances	Legal Framework	Communcation, Networking, PR	Urbanism	Other
SME	42	26	9	21	18	20	9	24	18	3
(%)		62	21	50	43	48	21	57	43	7
HEI	28	22	8	19	14	9	8	21	12	0
(%)		79	29	68	50	32	29	75	43	0
NGO	32	25	7	14	21	14	14	22	17	0
(%)		78	22	44	66	44	44	69	53	0
PA	20	12	3	7	9	8	5	16	11	0
(%)		60	15	35	45	40	25	80	55	0
Sum	122	85	27	61	62	51	36	83	58	3
(%)		70	22	50	51	42	30	68	48	2

Necessary soft skills

Which are the most important soft skills necessary to run an UA enterprise?

	in total	Communication	Empathy	Analytical competence	Creativity	Curiosity	Time management	Ability of lobbying	self-confidence	Capacity for teamwork	Trust-worthiness	self-control	Ability to handle conflicts	flexibility	Others
SME	42	26	5	20	20	11	12	9	10	26	11	3	9	18	5
(%)		62	12	48	48	26	29	21	24	62	26	7	21	43	12
HEI	28	24	6	10	20	7	9	9	11	17	9	5	12	13	3
(%)		86	21	36	71	25	32	32	39	61	32	18	43	46	11
NGO	32	25	9	11	21	11	10	12	7	18	9	4	18	14	3
(%)		78	28	34	66	34	31	38	22	56	28	13	56	44	9
PA	20	11	3	5	17	7	2	5	4	10	3	0	4	8	0
(%)		55	15	25	85	35	10	25	20	50	15	0	20	40	0
Sum	122	86	23	46	78	36	33	35	32	71	32	12	43	53	11
(%)		70	19	38	64	30	27	29	26	58	26	10	35	43	9

Pilot course

Pilot course

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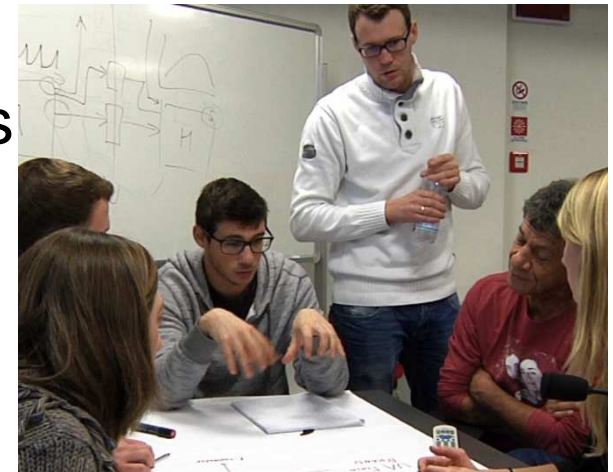- O3-A3 Creating and launching the EU CLUSTER on UA

Urban Green Train course

Architecture - 5 transdisciplinary modules de 30h (total 150h)
1. Introduction into UA concept and types
2. Resource use from a challenge perspectives
3. UA types/systems & short food chains
4. Networking and governance
5. The world of business and urban demands

Pilot course - at distance : 142 applicants
                     non UGT countries : 25
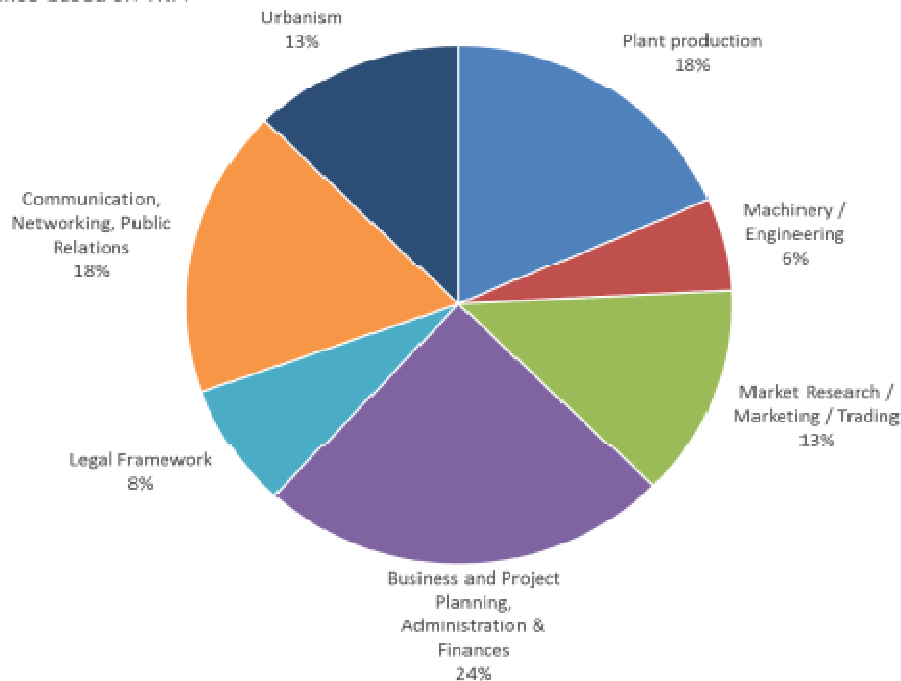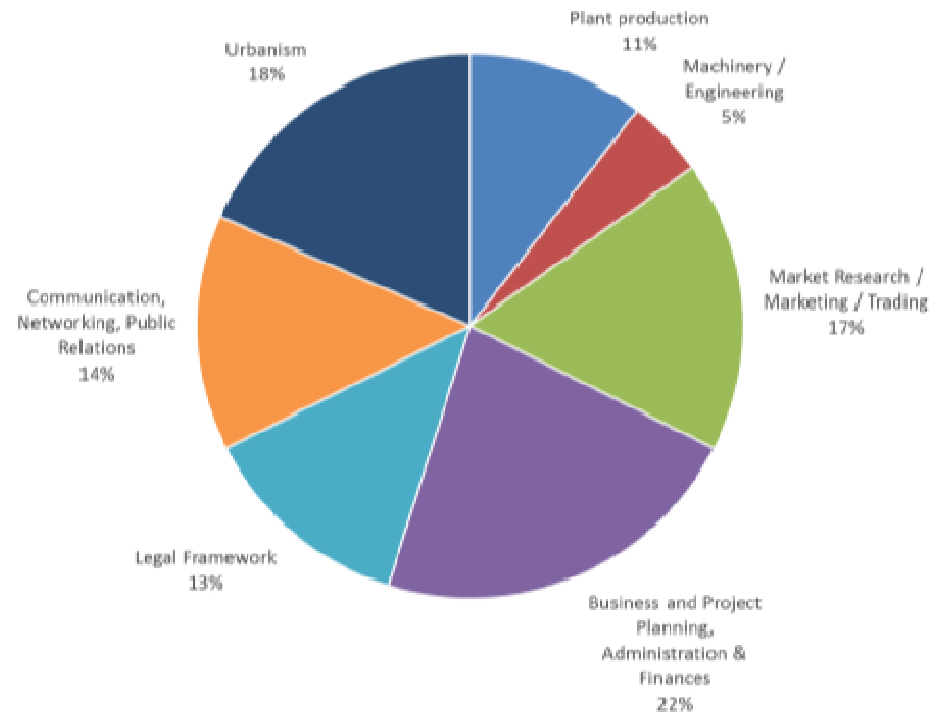   blended : 31 (<40)
Langages - EN, FR, IT, DE, PT

Urban Green Train course

Topics relevance

Training need analysis

UGT course

Urban Green Train course

1.1 URBAN AGRICULTURE CONCEPT AND ENVIRONMENT

Subchapters	Learning Objectives	Duration	Learning Outcomes
- 1.1.1 Defining Urban Agriculture - 1.1.2 Trend in food and non-food consumption - 1.1.3 Trends in city development and urban planning - 1.1.4 Professional trends in relation with UA - 1.1.5 Territorial analysis and governance - 1.1.6 Challenges for UA - 1.1.7 Diversity and roles of actors/stakeholders in UA	- Compare the basis of the various definitions of UA - Provide consumption and urbanization context of UA - Present the current professional context - Provide knowledge on territory diagnostic and governance based on urban or peri-urban context - Identify the main challenges regarding UA activities - Characterize actors and stakeholders - Compare the basis of the various definitions of UA	6	Learners are able to: • Identify an adapted definition of UA depending on the objective and context • Identify opportunities & constraints for UA • Understand professional support for UA • Use tools & methods for a territorial analysis • Map actors and stakeholders

1.2 FROM MULTIFUNCTIONALITY TO ECOSYSTEM SERVICES OF UA

Subchapters	Learning Objectives	Duration	Learning Outcomes
- 1.2.1 Concepts of multifunctionality and ecosystem services - 1.2.2 Services from UA - 1.2.3 Sustainable development of UA - 1.2.4 A framework for UA analysis	- Explain the evolution between multi-functionality and ecosystem services concepts - Present the diversity of functions and services of UA - Set the basis for an analysis of UA in regards with economical, environmental and social pillar	3	Learners are able to • Argue about UA advantages besides production • Identify functions and services from UA • Evaluate factors of UA sustainability

1.3 EVOLUTION OF UA DEPENDING ON THE CONTEXT

Urban Green Train : moodle

ALMA MATER STUDIORUM UNIVERSITÀ DI BOLOGNA
SERVIZIO E-LEARNING: PROGETTI

Urban Agriculture - Urban Green Train Erasmus+ project

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  International course on Entrepreneurship in Urban Agriculture within the project

Your progress ⦵

International course on Entrepreneurship in Urban Agriculture within the project ERASMUS+
URBAN GREEN TRAIN
www.urbangreentrain.eu

Evaluation Urban Green Train course

(n= 33 – 55)

Item	Positive answer
Content clear and well structured	94 % (88 – 100%)
Clear & useful assignments	86 % (81 - 94 %)
Tutors' feedbacks assignments	79 % (75 – 82 %)
Chance to exchange	94 % (91 – 98 %)
Content useful	88 % (75 – 100%)
Application for your own UA activities	93 % (88 – 96 %)

Drop-out rate (42 received the ompletion certificate)

Need for sharing experience : blended course (86.7% approved)

Perspectives

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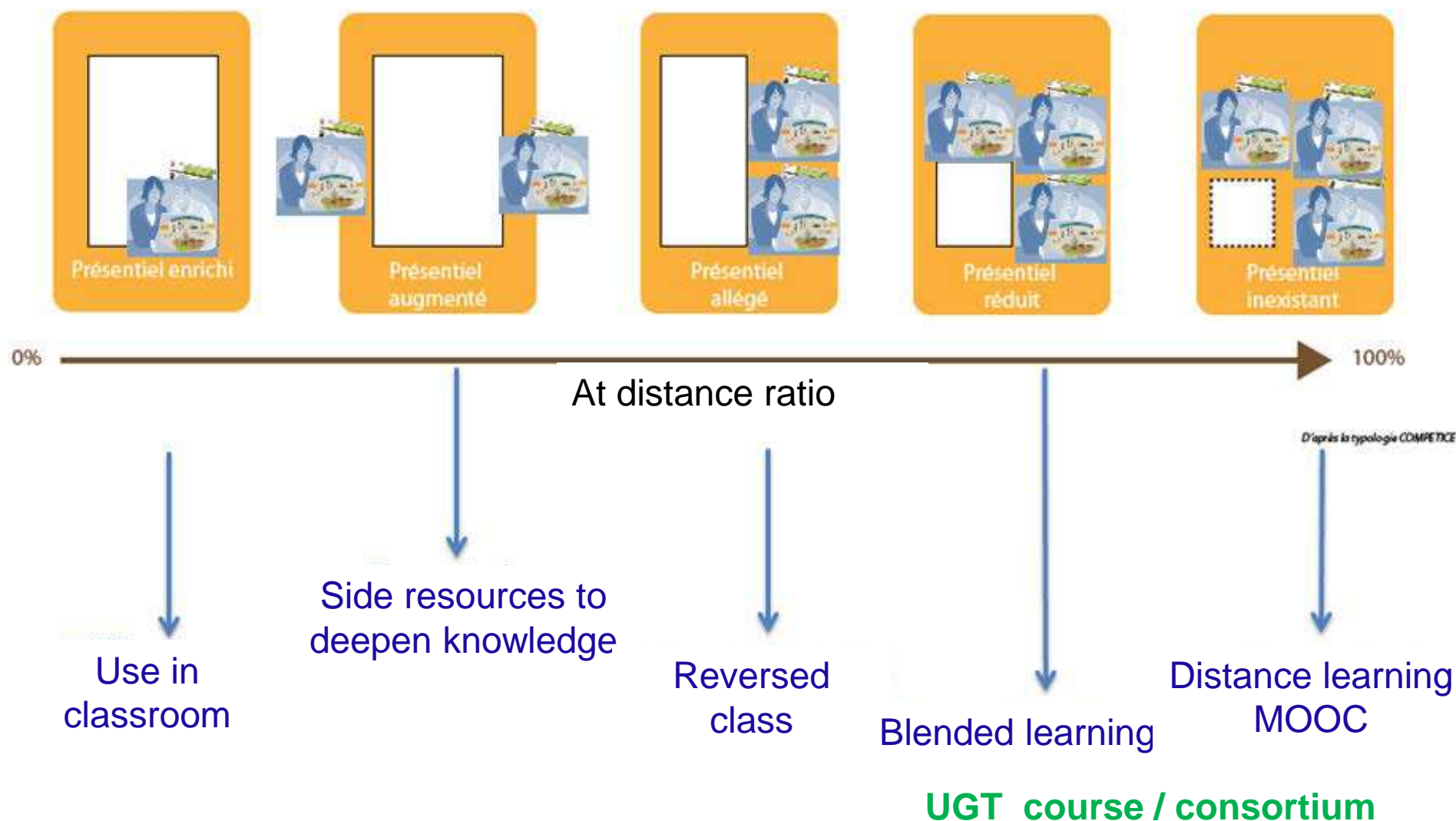
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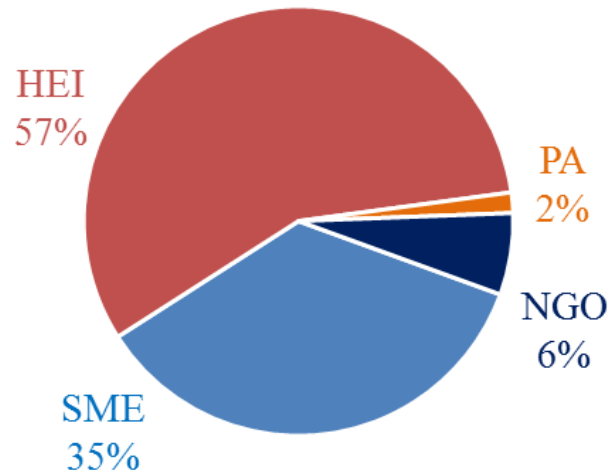**MODELING & RECOMMENDATIONS FOR UA ENTERPRENEURSHIP CURRICULUM**

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Perspectives : resources valorisation

| Présentiel enrichi | Présentiel augmenté | Présentiel allégé | Présentiel réduit | Présentiel inexistant |

0% ⟶ At distance ratio ⟶ 100%

D'après la typologie COMPETICE

Use in classroom

Side resources to deepen knowledge

Reversed class

Blended learning

Distance learning MOOC

UGT course / consortium

Perspectives : EU cluster

Cluster members

HEI 57%
PA 2%
NGO 6%
SME 35%

UrbanAG
Francesco Orsini (f.orsini@unibo.it)

Perspectives : Paris final conference

Erasmus+

With the support of the ERAMUS+
Programme of the European Union

URBAN GREEN TRAIN

URBAN GReen Education for ENTteRprising Agricultural INnovation

Entrepreneurship and urban agriculture : what skills to succeed?

10-11 July 2017
Urban Green Train final international conference, Paris, France

Venue: AgroParisTech, 19 avenue du Maine, 75015 Paris (Close to Montparnasse rail station)
Expected outcomes / output:
- Final restitution and perspectives of Urban Green Train project
- Exchange with stakeholders, share of entrepreneurial experiences
- Launch of EU cluster and French HI-research annual meeting on urban agriculture

Monday 10 July

Conference day	
8.00 – 8.30	Welcoming of participants
8.30 – 9.00	Welcome address by G. Trystram, AgroParisTech general director Welcome address by C. Bernhard, Agreenium director Introduction to the conference (E. Geoffriau, Agreenium / Agrocampus Ouest, FR)
9.00 – 10.45	**Urban Green Train restitution** (Moderator : R. Kahane, Agreenium / Cirad, FR) - Presentation of Urban Green Train Erasmus + project (G. Gianquinto, Univ Bologna, IT) - Assessment of economic entrepreneurial models (F. Hoekstra, RUAF, NL) - Entrepreneurial ideas & business plans (A. Cormery & M. D'Ambrosio, Urban Green Train course participants)

Niveau français :   lancement de journées annuelles de la recherche et enseignement supérieur sur l'agriculture urbaine

S'inscrire : http://www.vegepolys.eu/agenda/

Thanks to Erasmus+ **funding**

Emmanuel.Geoffriau@agrocampus-ouest.fr

On behalf of all the UGT partners: