

“Universities driving Innovation at an international scale – an appealing model to young scientists?”

A University Governance Issue

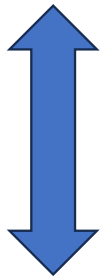


<https://www.lead2-project.eu/>

Jan Cornelis
Emeritus Professor
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<http://www.etrovub.be/>

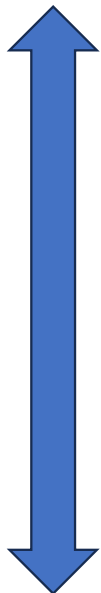
OUTLINE of the talk

What is
going on?
Mutations



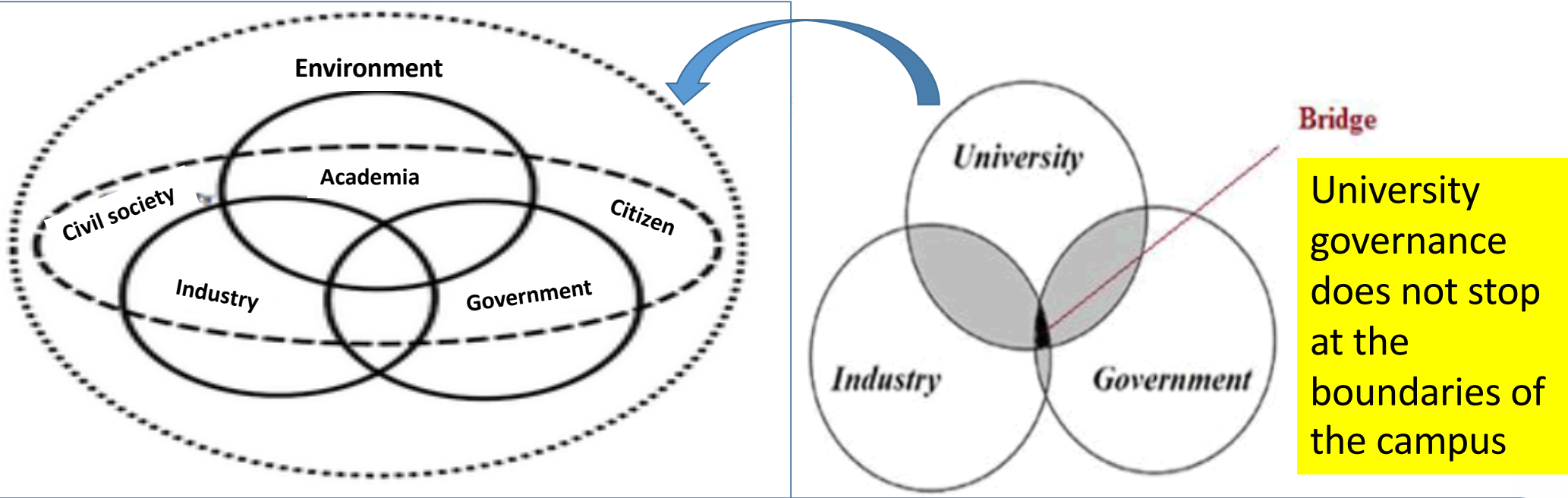
1. The stakeholders of the modern university
2. The support structure for Innovation and industry relations
3. Get involved in university R&D (advertisement)
4. From tech transfer to knowledge transfer and ecosystem

Internationalization
model



5. Internationalization and partnerships (new international ecosystems)
6. The crosslinks in the ecosystem
7. Examples
 - economic impact creation
 - cultural diplomacy
 - development cooperation
 - internships
 - Social entrepreneurship
 - AI revolution

The stakeholders: The quintuple helix model is underlying ALL aspects of University governance



Quintuple helix model involving citizens and environment
(Institutional ecosystem)

Triple helix model- positive overlap among the three systems (KTT)

Etzkowitz, Henry; Leydesdorff, Loet (1995-01-01). "The Triple Helix -- University-Industry-Government Relations: A Laboratory for Knowledge Based Economic Development".

Support structure for Innovation and industry relations- initially rooted in technology



Multidisciplinary team of experts
Bridge between university-
research-expertise and industry-
society

To be extended – see later on



Philanthropic Fundraising
Fellowship Program



A unique kind of academic and
corporate networking

VUB TECH TRANSFER

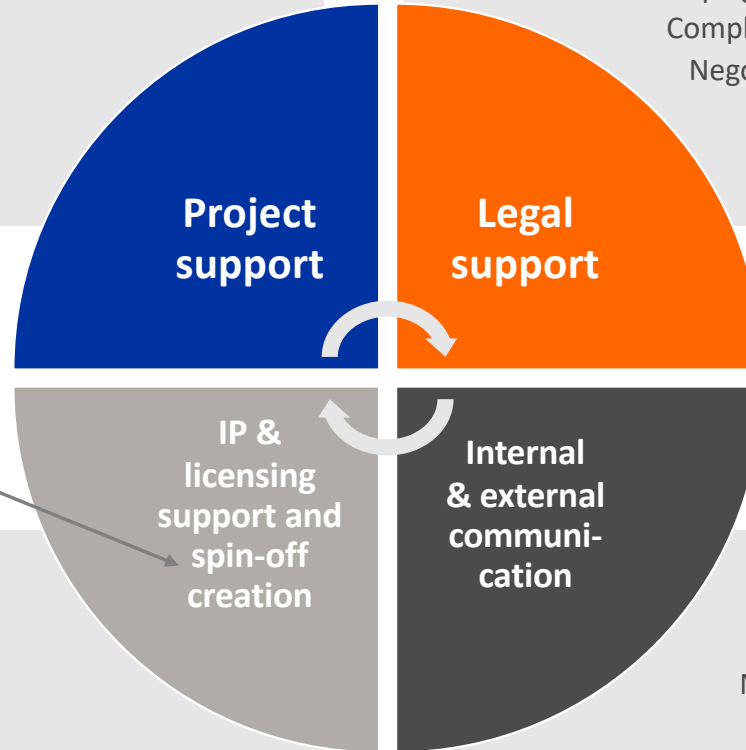
SUPPORT

Guidance of projects

Valorization
Support funding calls
Contract management

Set-up agreements & contracts
Compliance with regulations
Negotiations with partners

Spin-offs: Social responsibility; new economic and societal economy; slow revenue.
Danger: draining of talent;
Benefit: sustainable project flow; augmenting and accessing new type of funding



Primary source of income – contracts with industry and government - fast revenue

Combined IP preservation and contracts

IP management
awareness
registration
protection
follow-up

Networking & scouting
Create call awareness
Identify eligible partners

Internally, TT gives personalized service on demand

VUB TECH TRANSFER
SUPPORT

ERIS

Brussels projects

Industry & Flemish projects

Entrepreneurship education

Valorisation HSW / SSHA

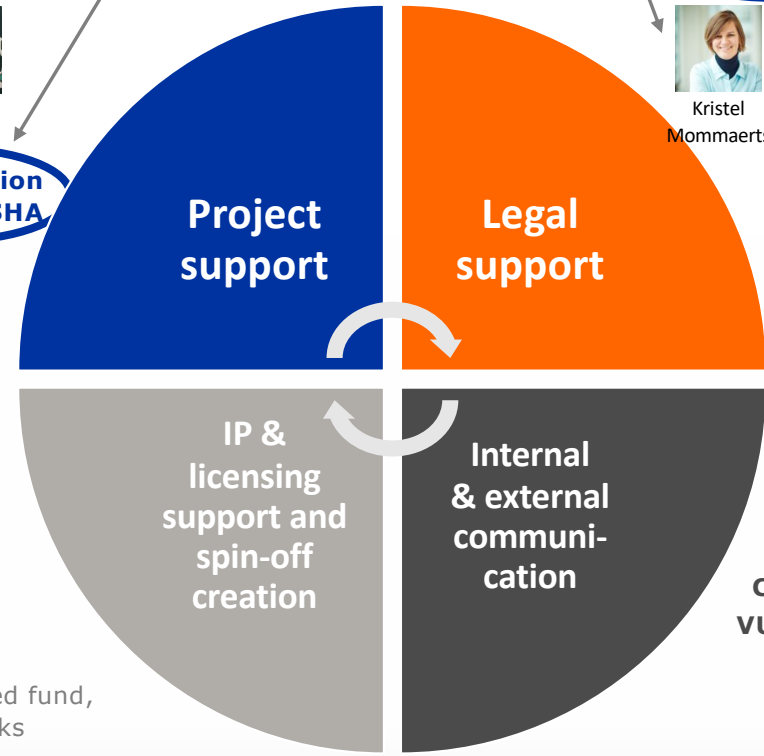
Philippe Westbroek, Anneke Gezyen, Qing Cai, Liesbeth Bosman, Marc Goldchstein, Jessica Hekking

Social Sciences, humanities, arts

Company Law

Legal, Contracts & Spin-offs

Kristel Mommaerts, Mariana Moreira, Twyla Quéva



Vicerector Innovation & Industry Relations

Hugo Thienpont

Head of Department

Sonja Haesen

Management Assistance

Tania Bauwens, Natasja De Landtsheer

Contract Management

Wesley Verbeke, Sophie Cammaerts

Foundation

Isabelle Marneffe, Elisabeth Rabaey, Erkut Gultekin, Hanan Balaraj, Mats Walschaers

Comm & Events VUB TechTransfer

Alena Aga, Lisa Van Reepingen

Crosstalks

Marleen Wynants, Goedele Nuyttens, Ine De Bock

Meet student expectations
Entrepreneurial eco-system

Spin-offs

IP & Licensing

Jacky Boonen, Hugo Loosvelt, Marsyas Coene

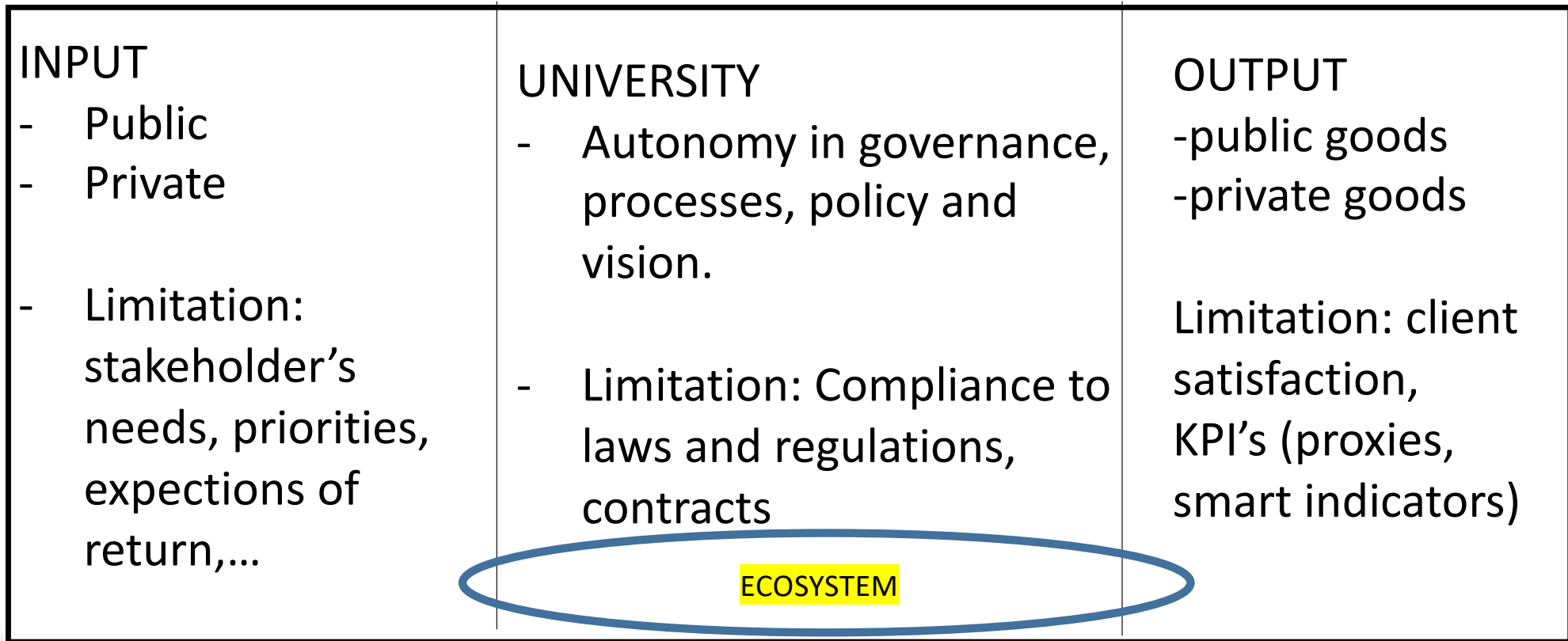
interuniversity early seed fund, Incubators, Science Parks



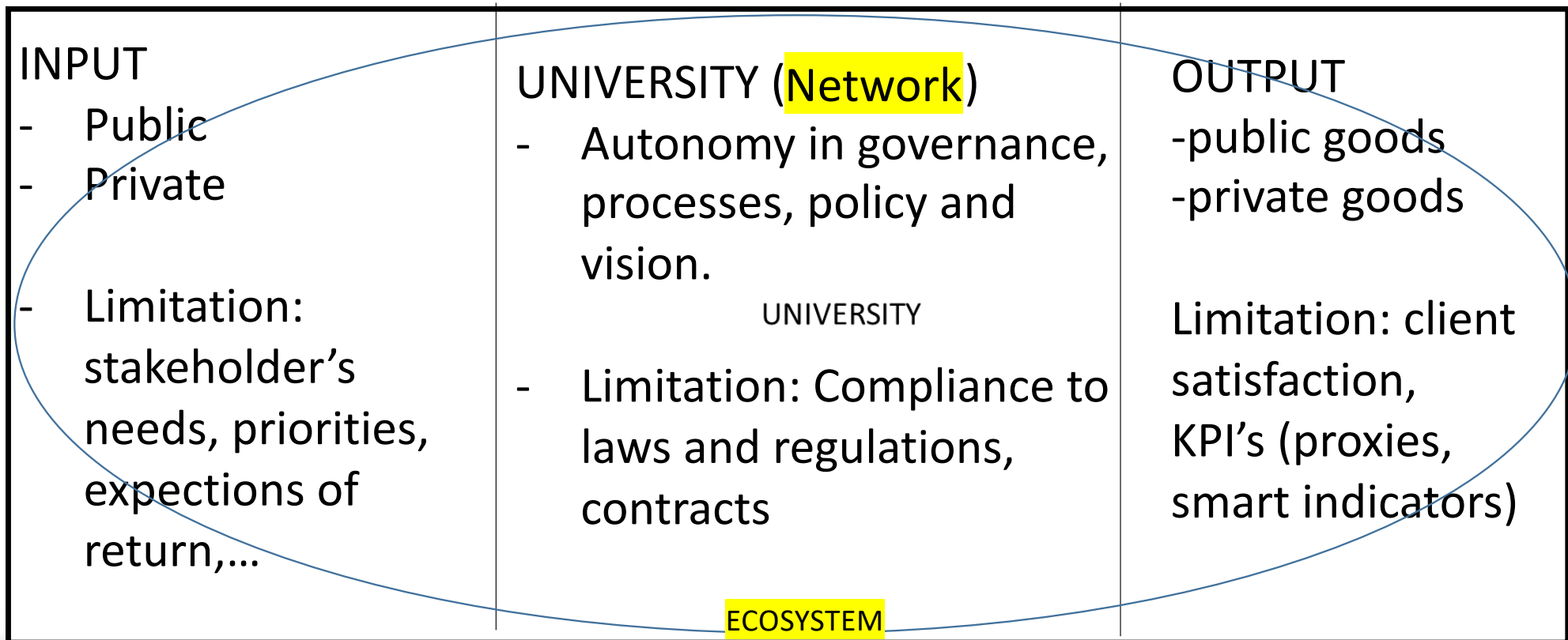
<https://www.vubtechtransfer.be/about-us/staff>

Platforms, clusters, Competence poles (virtual)strategic research centers

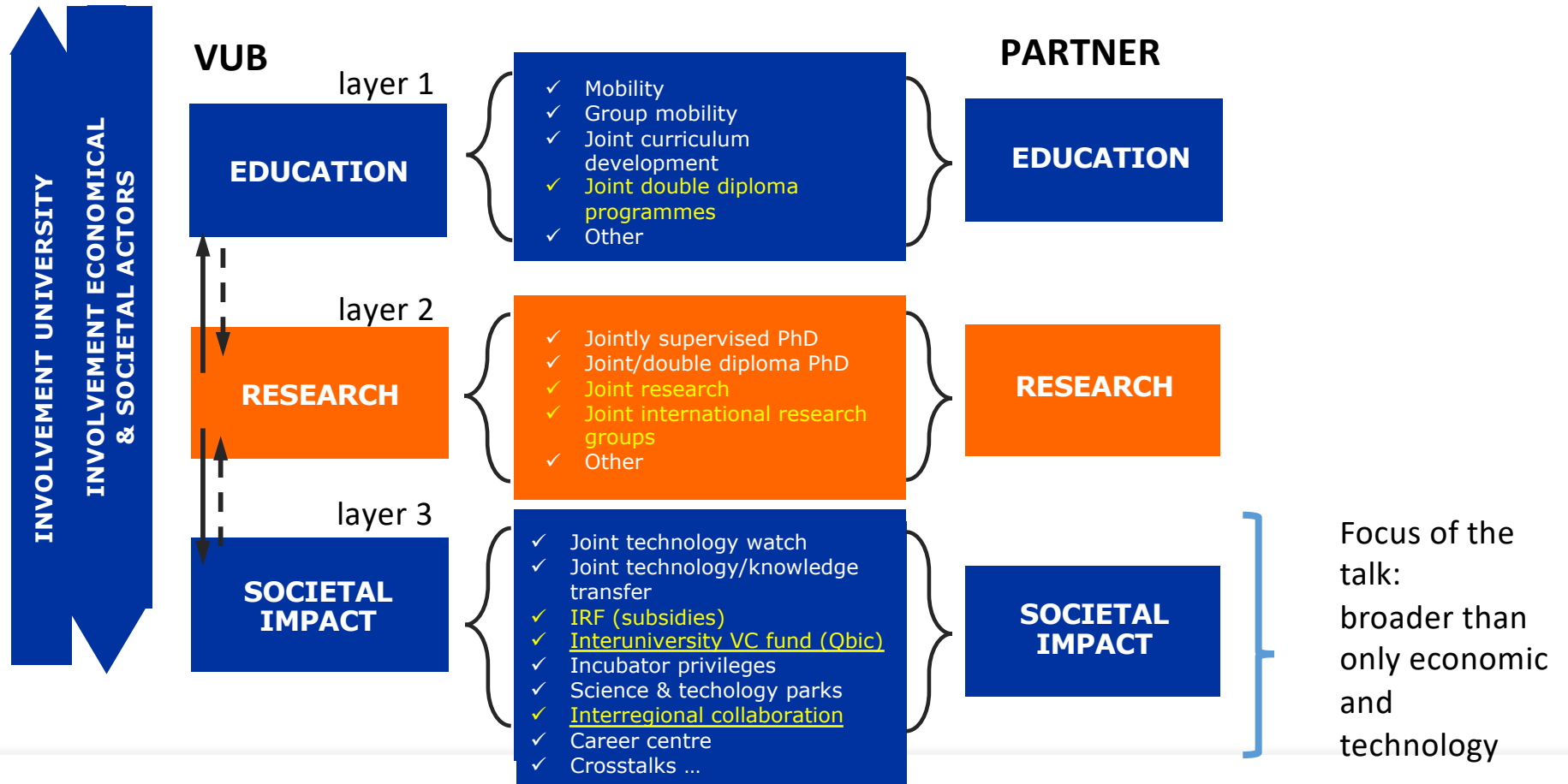
Modern University – Societal embedding ... the past until now



Modern University – Societal embedding ... Now and in the future



International Partnerships and sustainability



Making knowledge & technology transfer and value creation international

- The old approach

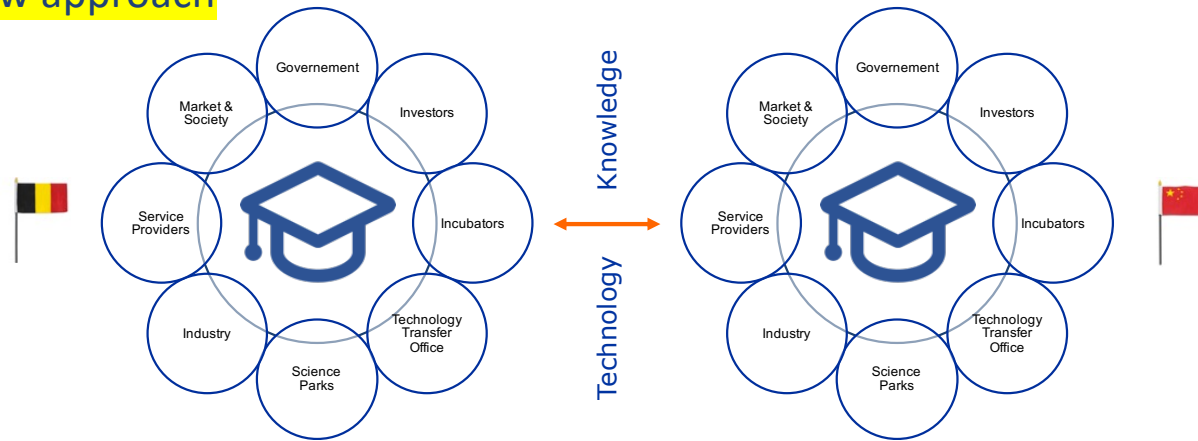
PLATFORM



- The new approach

SUPPORT & ESTABLISH REAL-LIFE CASES

Example

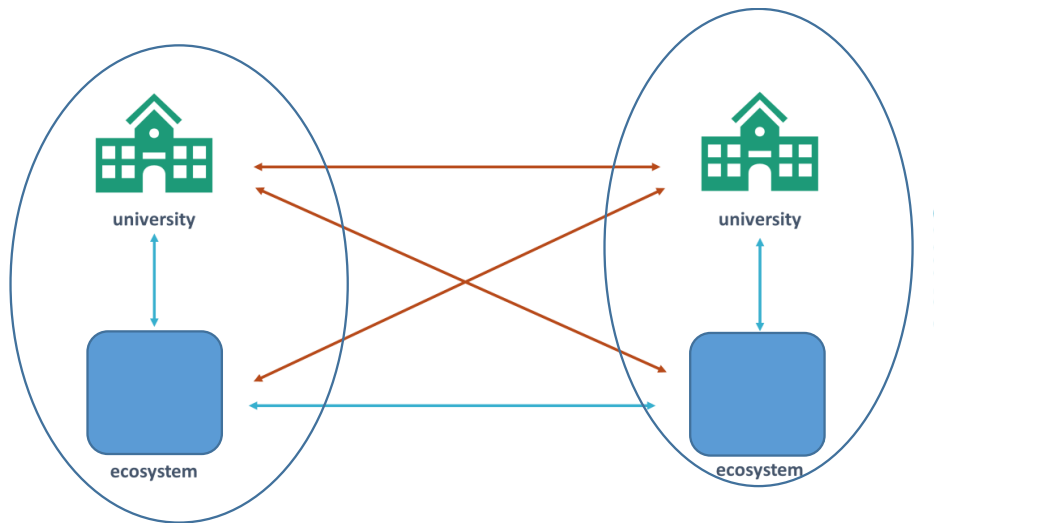


PLATFORM



Making knowledge & technology transfer and value creation international

Missing Knowledge transfer & exchange models



Drawing was made in the context of technology transfer



Example 1: Cultural Diplomacy- China-Brussels projects (1/4)

- ❑ Brussels Body Speech – Minsheng Art Museum, Shanghai 2010
- ❑ First CAFAMuseum Biennale, CAFA, Beijing 2011
- ❑ Bringing Broodthaers to Beijing, Tsinghua University, Beijing 2011
- 2013 ❑ Wanderlust, Gwangju Museum of Art, Gwangju, 2013
- ❑ Wanderlust - Third Version, MOCA, Chengdu 2013
- ❑ Our Memory? Jiao Tong University, Shanghai, 2014
- ❑ Master Mould and Copy Room, CAFA, 2014
- ❑ Chinese Utopias Revisited - The Elephants, BOZAR, Brussels, 2015
- 2016 ❑ Xu Bing: Worlds of Words/ Goods of Gods, Triennale Milano, 2016
- ❑ First International Biennial of Jinan, Shandong Museum, Jinan, 2020



3 phases

Cultural Diplomacy- Esprit des ancêtres (2/4) – link with university development collaboration

□ Kinshasha (2020)



**Geraldine Tobe -
contemporary Congolese
artist**

Main objective:

- reconnect a whole generation of contemporary artists with the essence of their ancestral culture
- Careful restitution of artefacts residing in the caves of the museum of Central Africa since colonial times

Cultural Diplomacy- Esprit des ancêtres (3/4) – link with increased urban engagement of the university

photo borrowed from an article in the
Spanish newspaper El País



Brussels as an international visual arts capital
Student involvement

Cultural Diplomacy- Esprit des ancêtres (4/4) – link with federal (national) policy

BAEF-BAEF : Belgian American educational Fund- Belgian African Educational Fund. A DREAM, but teamspirit can make the dream work

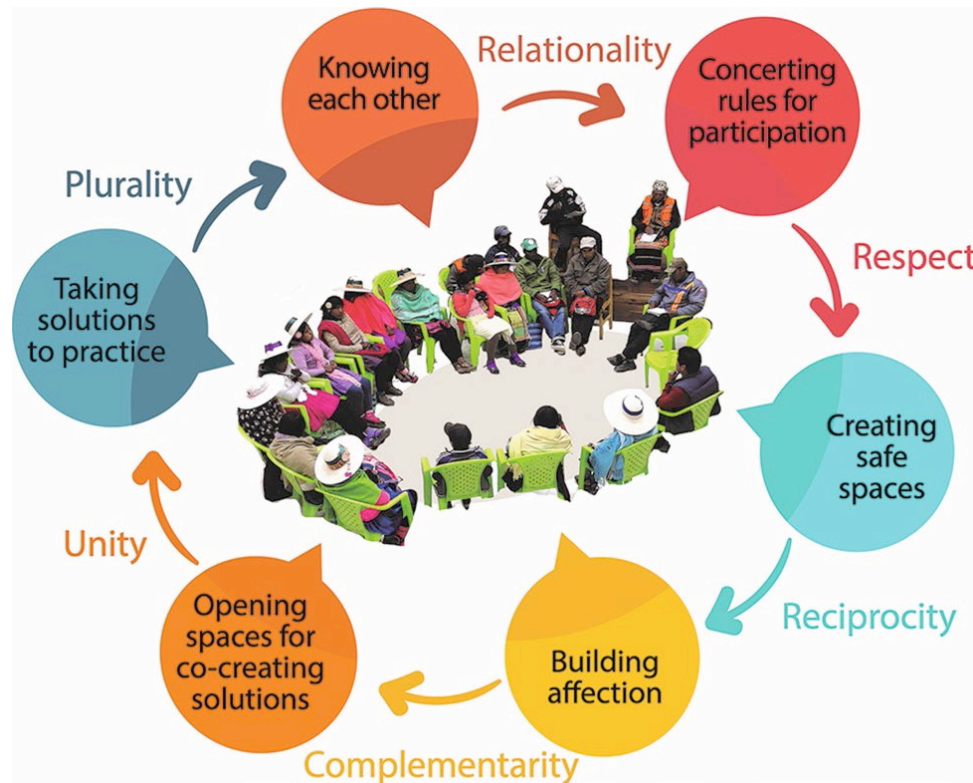
- Scientific backbone for the restitution debate
- The scope of cultural diplomacy is enlarged
- A sustained investment in human capital capacity building
- Restitution of artefacts guided by competent local people in Congo.

Hans De Wolf
Geraldine Tobe



photo borrowed from an article in the Spanish newspaper El País

Example 2: Decolonizing dialogues - integrating indigenous wisdom and scientific information in problem solving (1/2)



Circle of dialogue of wisdom, methodological framework – 6 stages

Theory of change is imposed in all government funded university development collaborations

Examples in agriculture: local agricultural expertise and science based approaches

Street children in Bolivia (applied psychology)

Sustainability Science (2021) 16:919–931 <https://doi.org/10.1007/s11625-021-00937-8>

“Breaking monologues in collaborative research: bridging knowledge systems through a listening-based dialogue of wisdom approach” Adriana Moreno-Cely · Dario Cuajera-Nahui · Cesar Gabriel Escobar-Vasquez · Tom Vanwing · Nelson Tapia-Ponce

Example 3: Social Entrepreneurship and Innovation (1/4)

- ❑ **Social entrepreneurship** is an approach by individuals, groups, start-up companies or entrepreneurs, in which they develop, fund and implement solutions to social, cultural, or environmental issues. This concept may be applied to a wide range of organizations, which vary in size, aims, and beliefs.
- ❑ Creation of the **Chair for Social Entrepreneurship** (October 2015)
 - Location at the Solvay Business School (VUB)
 - Funding: Close The Gap, Euroclear, The National Bank of Belgium, Fortis and Wolters Kluwer
 - Academia and business in search for sustainable business models of social entrepreneurship. Education: non-profit sector management



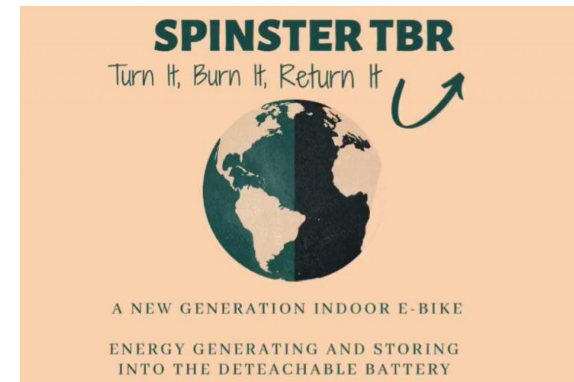
Prof. Nikolay Dentchev

Social Entrepreneurship and Innovation (2/4)

❑ A PLATFORM IN SUPPORT OF SOCIAL ENTREPRENEURS

<https://www.vubsocialentrepreneurship.com/>

- Here, social entrepreneurs can launch their projects and receive support
 - 24583 € Collected
 - 56 Projects
 - 209 Followers

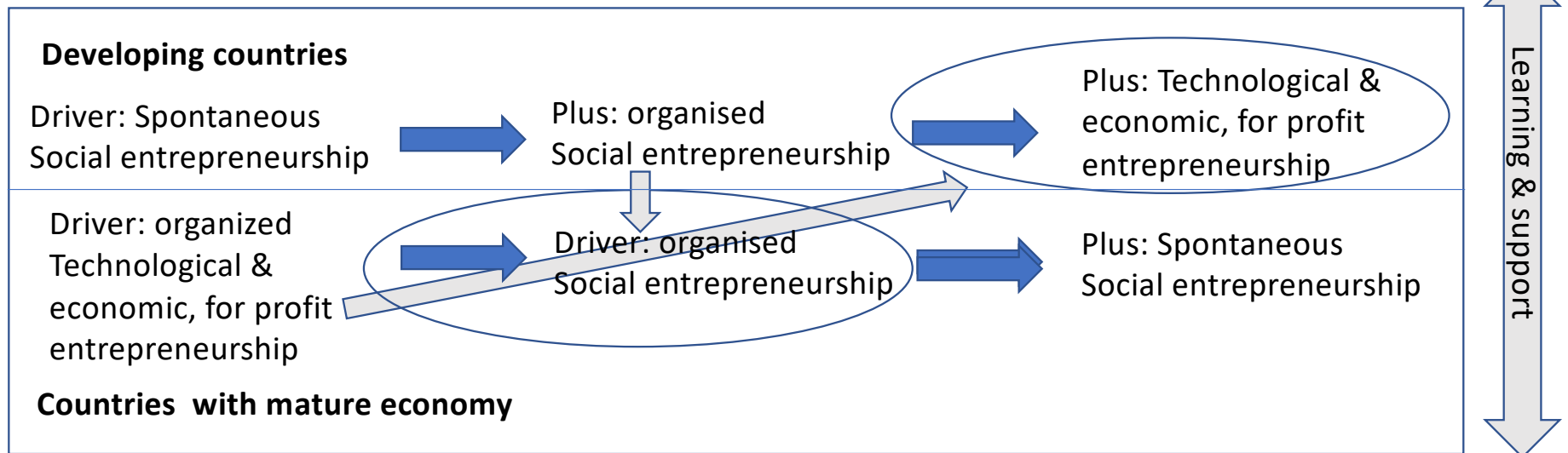


Social Entrepreneurship and Innovation (3/4)

- ❑ ELANET: Erasmus + supported capacity building project: Belgium, Bulgaria, Austria and Italy and Latin-America (Bolivia, Colombia, Ecuador and Peru). <https://www.elanet-se.org/>

Why do I consider social entrepreneurship as an important institutional component of the third pillar of universities?

- Reinforcement of Development cooperation and Internationalization partnerships



- Community services reinforcement of KTT that is now primarily oriented towards industry, technology and for profit

Sustainable anchoring needed

Social Entrepreneurship and Innovation (4/4)

Fundraising campaign

Student demand
exists



Ready to be picked up by university governance ... but problem to be solved is co-existence of two KTT models: IP-based as-is now and social oriented as in SE ... that is a story for another time

Example 4: Universities can reach out where diplomacy fails

Participatory research:

- ❑ **Detention camps in Syria: the repatriation of children together with their families (mothers), in the aftermath of the IS crisis (Applied Psychology)** - an interview by Jan Cornelis, published in Diplomatic world, 2020

Syria...Classical diplomacy fails: no official diplomatic channels with the Kurds who organize the refugee camp

- ❑ **Street children in Bolivia in collaboration with NGO's in the ecosystem of the local university in la Paz, Universidad Boliviana**
- ❑ **Arabic language teaching independent of religion to avoid identity crises of immigrants**
No government or political support (to delicate!).
Today proximity schools in Brussels exist: 300 students aging 5-15 years
DREAM: to export the Model to cities with similar problems of integration

Example 5: Universities support the cross links in the model

- ❑ French engineering schools: long mandatory internship abroad (condition to obtain the diploma)
- ❑ VUB medical school, one out of the 4 internships in a developing country....

Example 6: Generative AI Increased involvement of universities needed Opportunities and concerns

- Origins of AI are within universities and research centers
- But fundamental research is not the monopoly of universities anymore
- Recent developments and breakthroughs occurred in industry
- **Crosslinks** in the model should be activated

Requirement: Adaptation to the speed (new for many universities!) of turning knowledge into societal and economic impact

Crosslinks international (EU-China)

- “Confucius, cyberpunk and Mr. Science: comparing AI ethics principles between China and the EU”, Pascale Fung, Hubert Etienne, *AI and Ethics* - 2023), Springer Nature
- “Ethics by nature is not consensual”
- Legacy of Confucius versus Immanuel Kant (Enlightenment) -- > **different cultural identities**
- EU: focus on *individual citizen, individual rights*
 - *protection of individuals* (also against the power/abuse of the state)
 - *a priori* initial limitations to avoid potential abuses
- China: focus on improving *society as a common good*
 - stepwise pragmatic limitations to maintain societal **harmony** – trust in government. Positive attitude towards AI.

Promotional (China) versus limitative deontological (EU) approaches

Crosslinks international... Why?

- Starting point: Respect for both cultural identities is needed. Western democracy versus Socialist people's republic with Chinese characteristics
 - Laws of science are identical in China and EU
 - Computer scientist curriculum is very similar in EU and China. Universities are the carriers of this common ground.
 - → Regulations on AI will be different but compatible
-
- Ideally: Mr. Confucius (virtuous government) advocates a harmonious society and Mr. Kant representing Enlightenment advocates personal rights
 - They find a common support from Mrs. Science. Mrs. Innovation in university platforms

Sustainability in time – a few remarks

Receptive leadership is needed to integrate new initiatives in the institutional policy (e.g. cross-links) to give them leverage and make them sustainable

Ecosystem to Ecosystem collaboration creates cross-fertilization that has different parallel and crossing collaborative paths that mutually reinforce each other and create more sustainability

Keep geopolitics out of the university governance policy in order to keep all dialogs alive. Who else will do it?

University autonomy is key -- > An important task also for the coming generations!

All examples are not feasible without the cross-links

DISCLAIMER QUOTE: “Do not take my proposals for granted, but at least: sit down for a while, consider them and make your own choices”.

Papa Smurf (this is one of my nick names in China)

