Sustainable University: Beyond the Third Mission
The Future of Sustainable Development

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Sustainable development

Human beings are at the centre of concerns for sustainable development

They are entitled to a healthy and productive life in a harmony with nature

(The first principle of Rio Declaration, 1992)

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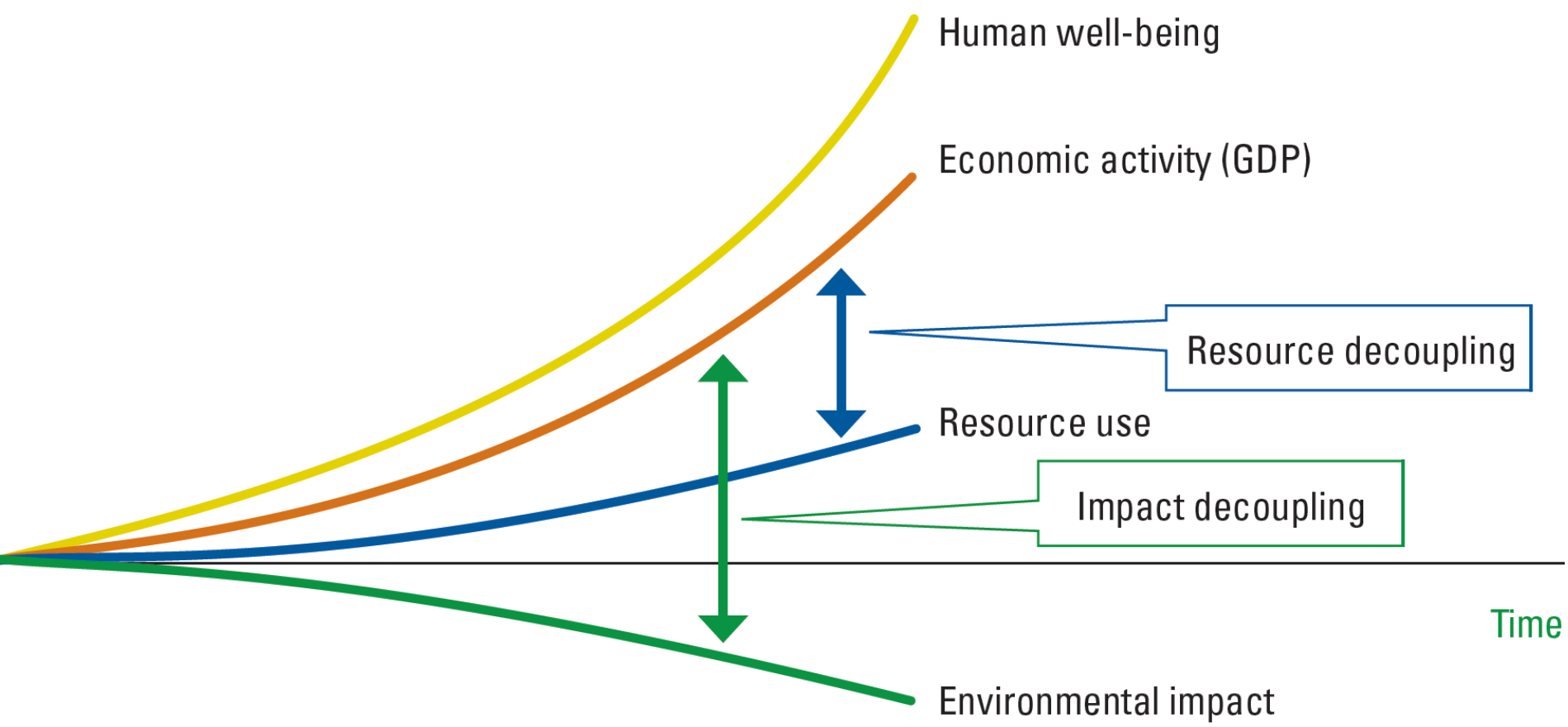
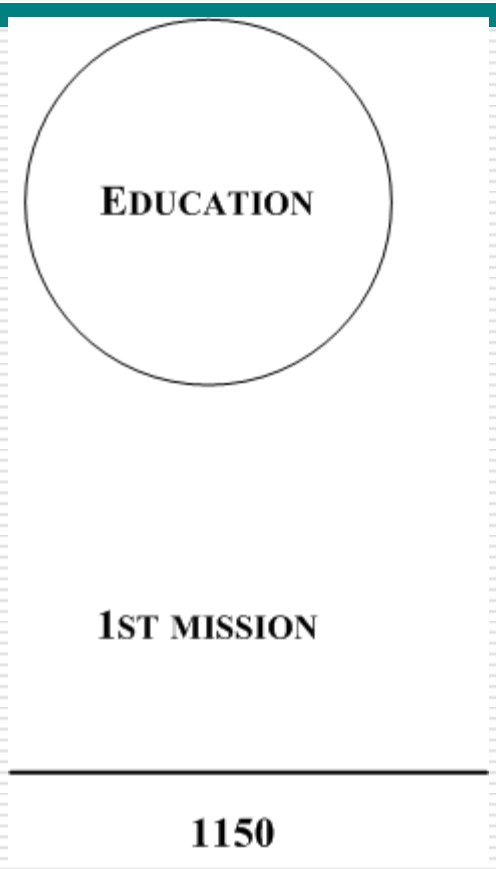
Scenarios for sustainable economical development

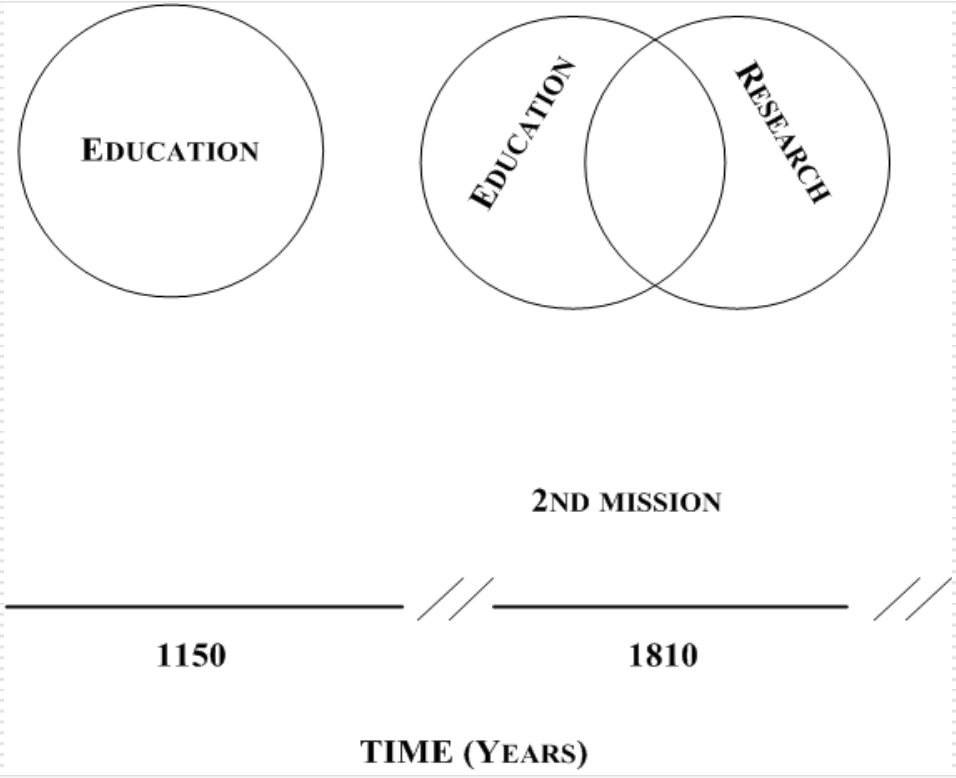


THE FIRST MISSION



The University of Paris appeared around 1150 (College of Sorbonne since 1257) as a corporation with the Notre Dame cathedral, is internationally highly reputed for its academic performance in the humanities – notably in theology and philosophy. It introduced several academic standards and traditions that have endured ever since and spread internationally.

THE SECOND MISSION (1)



It was the educational ideal that was named after Wilhelm von Humboldt (1767 – 1835), who was among other things the Prussian minister of education (brother – Alexander van Humboldt was prominent natural scientist and explorer). Wilhelm was known first and foremost for his reform of university according humanist principles, where very important for him was that schools and universities be fundamentally "neutral" – free from ideological influences and private interest.

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THE SECOND MISSION (2)

- Liberality of Universities promoted by Humboldt was the model on which development in many other countries was based, for instance, Stanford university is proud of their European roots comprising on their seal motto “The wind of Freedom blows”(Der Wind der Freiheit weht).
- Humboldt was the first to call of the independence of academia, to envision the integration of natural, social sciences and humanities and to demand the unity of research and teaching: none of these concepts have lost their relevance.
- One of his activity results was the establishment of Berlin university (Humboldt – University of Berlin) and that his alma mater became the largest and most renowned university in Germany, home of 29 Nobel Prize winners.

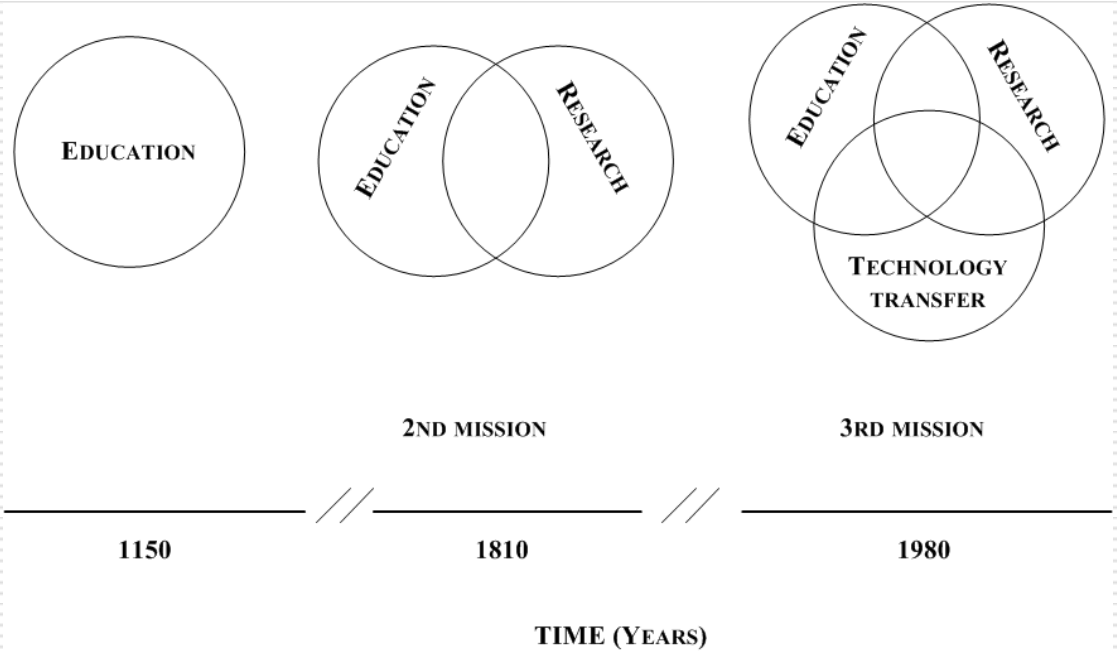
UNIVERSITY – INDUSTRY PARTNERSHIP (1)

- In Japan, companies prefer informal ties with universities. Corporate researchers co-author papers with university faculty members, spend time working at university laboratories, do joint projects with university researchers, and enter into consulting arrangements with university-based researchers.
- At the other extreme is US, where UIPs cover the entire spectrum but formal contractual arrangements with universities are common, as are outsourcing entire research projects to university labs, joint research agreements, and individual contracts with key researchers.

UNIVERSITY – INDUSTRY PARTNERSHIP (2)

- Europe falls somewhere in the middle. In the Republic of Korea and India, small firms have virtually no contact with universities as far as research is concerned, but they may seek help for the purpose of trouble- shooting from individual researchers. A similar tendency is materialising in China as a result of a determined push by governments to induce both universities and state enterprises to cooperate in developing technologies
- To push toward research and commercialisation in US, in Europe, in Japan and now in China has acquired greater force, because governments are trimming their contribution to university budgets and requiring them to supplement their earnings from the fruits of their research, whether through knowledge transfer, spin-offs, or equity stakes in start-ups.

THE THIRD MISSION (1)



The entrepreneurial model with active university-industry partnership and technology commercialisation efforts has been framed and increasingly normalised and promoted in public policy around the globe via notion of a „third mission“.

PERFORMANCE MANAGEMENT IN THE 'OLD' AND THE 'NEW' ACADEMIA

DIMENSIONS	'OLD' ACADEMIA	'NEW' ACADEMIA
WHAT IS MEASURED, BY WHOM, AND HOW?	FEW INDICATORS NO INDIVIDUAL LEVEL MEASURING	QUANTITATIVE INDICATORS MEASURING AT ALL ORGANIZATIONAL LEVELS
WHAT ASSUMPTIONS UNDERLIE PERFORMANCE MEASUREMENT?	DEVELOPMENT MEASUREMENT, PERSONAL PROGRESS	JUDGMENTAL MEASUREMENT, CONTROL
WHAT KIND OF A UNIVERSITY IS CREATED?	'HUMBOLDTIAN'	'MARKET - ORIENTED'
WHAT KIND OF ETHOS SHOULD ACADEMICS HARBOR?	COLLEGIAL ETHOS	COMPETITIVE ETHOS

REFLECTIONS ON THE THIRD MISSION: FINLAND

„We carried out an in-depth thematic analysis of the responses to the open question at Finnish universities.

This led us to identify different aspects and dimensions of PM on the basis of which the respondents unpacked its effects on the attractiveness of an academic career.

The text were filled with irony and sarcasm as well as witty observations of the state of Finnish universities...

Our respondents see the adoption of PM as a violation of academic freedom and of the traditional collegial values of university.

We conclude that the ethos of what it means to be an academic in stake, as a new competitive ethos is challenging the traditional collegial ethos.

It directs those who do academic work to pursue goals that are rewarded by PM measures and metrics, even if the scholars themselves do not agree with rationale and usefulness of these indicators" *(K-M Kallio, J. Tienari, T. Hyvonen, 2016)*

REFLECTIONS ON THE THIRD MISSION: SWEDEN

For the time being suffice it to say, commonsensically, that university produce research and education, and that there is a general expectation that the two are connected...

Whatever terms we use, two important aspects remain: namely, although universities are undoubtedly involve in some kind of production, the nature or essence of what they produce can at best be expressed metaphorically; from this it follows that it is difficult to evaluate such an enigmatic product, and equally difficult to optimise its production , the technology of which is far from clear. – from „Gone shopping? Universities on their way to the market" *Barbara Czrniavska (Gothenburg univ.), Kristina Genell (Lund univ.)*

REFLECTIONS ON THE THIRD MISSION: SOUTH EUROPE (1)

"Not mediocrity leads to success, but the quest for perfection. In this sense, Humboldt with his demand for individual performance may serve as a guide for universities, academicians and perspective holders of a doctoral degree on their path into the future… The alternative I do not to imagine. That would be the streamlined educational institution according to EU standards where not science but economy, cost savings and specifications from Brussels would be the measure of all things – Humboldt however would be sought there in vain"

Heinrich Kern, former Rector of Danube University Krems , 26 annual meeting of Danube Rectors conf. 2010, Novi Sad.

REFLECTIONS ON THE THIRD MISSION: SOUTH EUROPE (2)

„For all but the most careerist academics, it is difficult to feel committed to goals that seem, indeed often are, arbitrary... The misapplication of private sector human resources techniques harms individuals without raising performance."

Rob Briner, (2015). Universities are mismanaging performance. The Times, Higher Education.

„An empty head makes nodding very easy"
(Zarko Petan, Slovėnian writer)

REFLECTIONS ON THE THIRD MISSION: AUSTRALIA (1)

The findings from 21 Australian universities revealed predominantly negative participation about the purpose, process and development support of performance management.

Underpinning this were criticisms of a simplistic organizational orientation and compliance tool susceptible to manipulation and misuse.

This contributes to a deteriorating working environment, contrary to what is expected to highly educated professionals and advanced educational institutions.

These findings provide university management with an insight into how academics, especially older, perceive performance management and how this is in turn impacts job satisfaction and motivation. *(Larkin, Jacqui, Neuman, Ruth, 2013)*

REFLECTIONS ON THE THIRD MISSION: AUSTRALIA (2)

The latter part of 20th century saw an erosion of the supposed "ivory towers" of academic, globally. University independence and academic freedom have come under increasing coercion in many countries. Despite the fact that the federal government in Australia had no constitutional power over universities, by offering "tied grants" to the states it effectively co-ruled universities under the direct control of a Central Administration. As a result, the work done by academics has undergone a shift away from the previous collegial model to corporate managerial model and performance management.

Morris, Leanne "Performance appraisal in Australian Universities – where are we now?."

UNIVERSITY OF THE FUTURE (1)

Deloitte (2014) „Performance management is broken"

Replace "rank and yank" with coaching and development. Today's widespread ranking- and ratings-based performance management is damaging employee engagement, alienating high performers, and costing managers valuable time.

Only 8 percent of companies report that their performance management process drives high levels of value, while 58 percent said it is not an effective use of time. Leading organizations are scrapping the annual evaluation cycle and replacing it with ongoing feedback and coaching designed to promote continuous employee development.

UNIVERSITY OF THE FUTURE (2)

Deloitte Model:

- Get senior leaders involved—and keep them involved
- Use performance management to build skills
- Teach managers to give better feedback
- Simplify the process
- De-link performance scores and compensation
- Coach everyone

REFLECTIONS ON THE THIRD MISSION

What is often forgotten is that the emergence of the enterpreneurial model is a phenomenon occuring in few universities, particularly in the USA, driven by success stories such as the high-tech driven economic prosperity supposedly attained by linkages between Silicon Valley and Stanford.

REFLECTIONS ON THE THIRD MISSION: USA

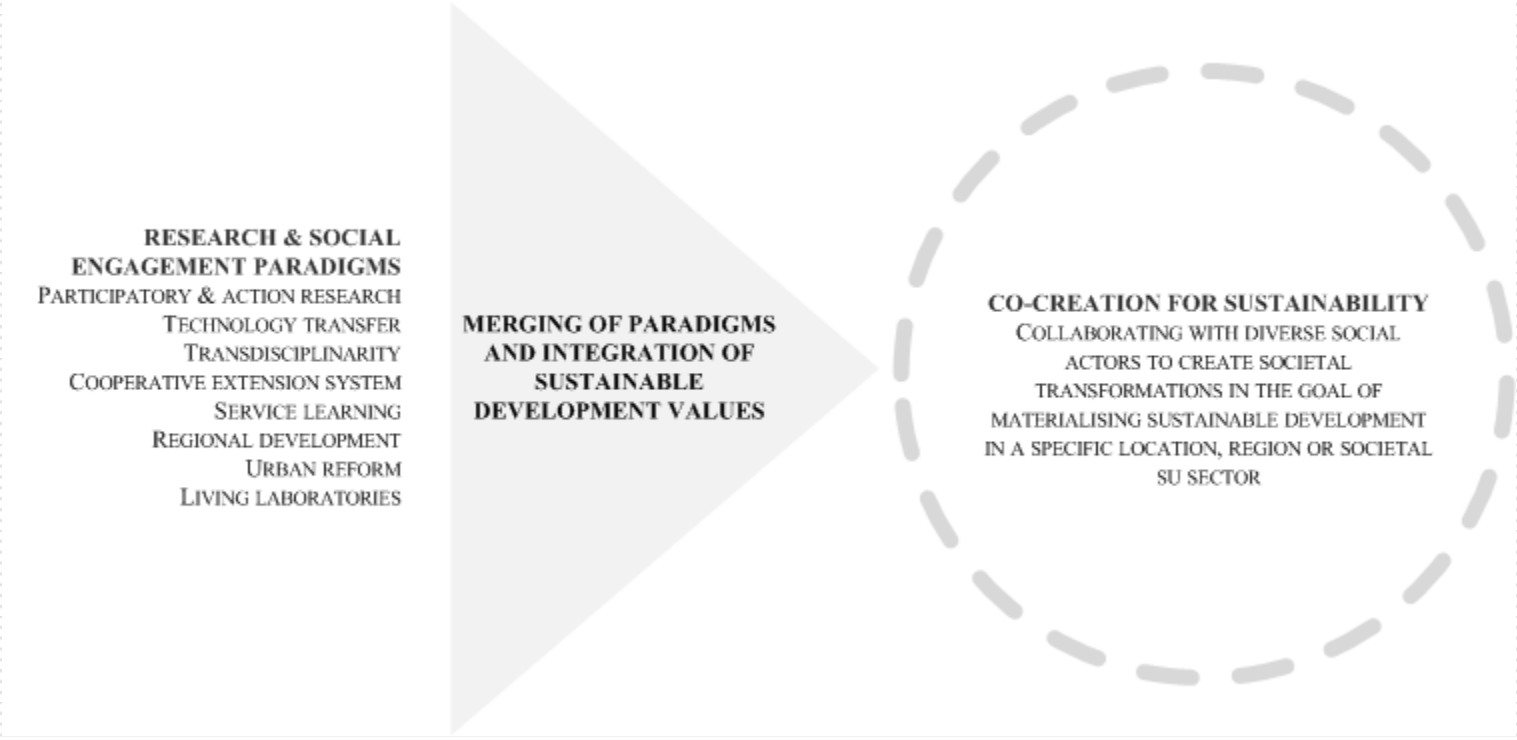
„As universities become more identified with commercial wealth, they also lose their uniqueness in society. They are no longer viewed as „ivory towers“ of intellectual pursuits and truthful thoughts, but rather enterprises driven by arrogant individuals out to capture much money and influence as possible“

Nobel laureate Philip Sharp, MIT

CO-CREATION FOR SUSTAINABILITY: SUSTAINABLE UNIVERSITY (1)

The universities should place an explicit emphasis on the process of co-creating physical and permanent transformations as opposed to the creation of scientific knowledge, which per se, doesn‘t necessarily guarantee action or transformation. „Co-creation for sustainability“ is a systematic synergising of many previously established research and social engagement paradigms and are used to drive any combination of technological, social or environmental transformation to sustainability in a specific location, region or societal sub-system.

KEY PROPERTIES OF CO-CREATION FOR SUSTAINABILITY



CO-CREATION FOR SUSTAINABILITY: SUSTAINABLE UNIVERSITY (2)

- ***Objective.*** Co-creation for sustainability aims to address localized sustainability issues by creating socio-technical and environmental transformations with the goal of materializing sustainable development in a given geographical vicinity.
- ***Model.*** The concept of a "transformative university" – a multi-stakeholder platform engaged with society in a continual and mutual process of creation and transformation – forms of guiding image and physical representation of an institution actively working with co-creation for sustainability.
- ***Paradigm***. The concept of sustainability provides the intellectual paradigm and guiding principle for all undertakings.

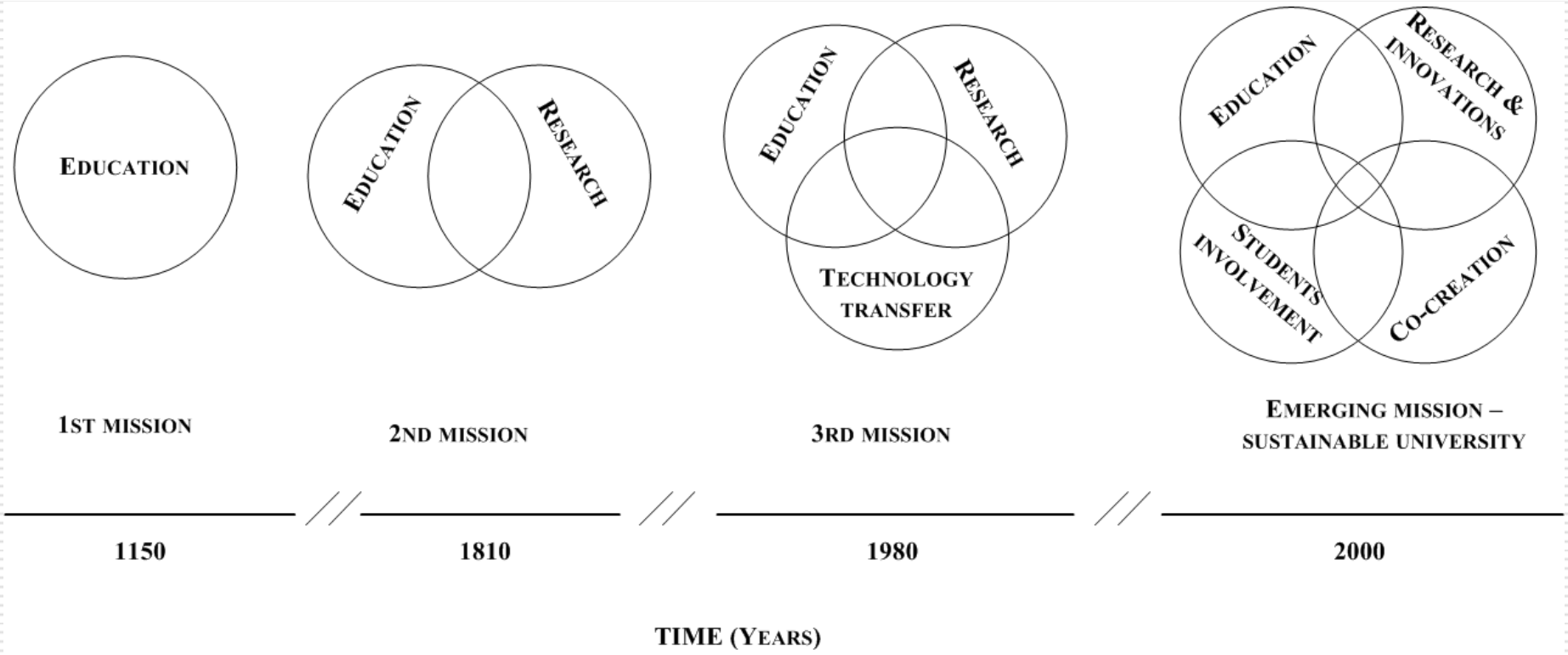
CO-CREATION FOR SUSTAINABILITY: SUSTAINABLE UNIVERSITY (3)

- ***Disciplines.*** Co-creation for sustainability involves professors and researchers from very broad range of fields, typically involving transdisciplinary collaborations.
- ***Approach.*** Open innovation platform – place and stakeholder. Draw upon and integrate a wide range array of methods into a systematic response to several interwoven sustainability problems.
- ***Collaboration.*** The new role – universities seek the participation of broad range of non-specialists and civil society.

CO-CREATION FOR SUSTAINABILITY: SUSTAINABLE UNIVERSITY (4)

- ***Chief drivers***. Sustainability transformations include both specialized and multi-disciplinary scientific knowledge and both technological and social innovation. Other drivers include broader forms of socially embedded knowledge and trans-disciplinary mutual learning amongst vast groups of researchers, governmental officials, practitioners and civilians.
- ***Setting.*** In the place-oriented mode of co-creation for sustainability, the partnership addresses itself to a specific geographical area, context and community of stakeholders.
- ***Catalyst.*** The process of co-creation for sustainability is triggered by societal challenges such as "how to create a sustainable energy system?" or "how to create a resilient, post- fossil fuel economy?"

EMERGING MISSION (1)



EMERGING MISSION

As has become clear from systematic comparison of the two functions of technology transfer and co-creation for sustainability reveals striking differences and these differences are so great that it is unhelpful to considerthe role of co-creation for sustainability to be mere offshoot or different enactment of the third mission. Instead, these two functions could be considered as two distictly different but compatible missions. (*Trencher et al. 2014)*

CASES OF TRANSFORMATIVE INSTITUTIONS (1)

2000 Watt Society Pilot Region Basel program by ETH and Novatlantis, Switzerland

It was born as a Novatlantis- mediated alliance between the ETH and implemented a series of sustainability projects in the areas of mobility, construction and spatial development that would be fed by technical and social innovation from the ETH and implemented with the aid of the city and private enterprises. The program seeks to foster a city-wide transition to a 2000-watt per capita society, with the wider ambition of accelerating a national de-carbonization effect. The program emerged in 2001 and the city has clearly signaled the importance of the partnership in harnessing and synergizing the necessary creative forces from academia, industry and local government to driving the sustainable transformation of Basel.

CASES OF TRANSFORMATIVE INSTITUTIONS (2)

The Oberlin Project: Oberline College, OH, USA

The project is an alliance between the Oberlin College and the city of Oberlin which has emerged in 2008. The ultimate aim is to transform greater Oberlin into an exportable prototype of post-fossil fuel prosperity based upon economic, social and environmental resiliency and sustainability. There is a clear potential for the frontrunner institution of Oberlin College to leapfrog the widely promoted model of the entrepreneurial university and become a prototype of a transformative institution – one dedicated to co-creating societal transformations with a view to materializing sustainable development. The example of one of the aims – is to reach 70% localization of the entire food chain in 2020.

CASES OF TRANSFORMATIVE INSTITUTIONS (3)

So far there are more than 40 cases identified around the world of completed or ongoing projects, which satisfy the following criteria:

- has the objective of advancing the sustainable transformation of a specific geographical area or societal sub-system in industrialized Europe, Asia or North America;
- it is initiated, coordinated or led by university actors;
- it involves a formal or informal collaboration with any combination of partners from academia, industry, government and the civic sector;
- it mainly addresses a community of external stakeholders.

CASES OF TRANSFORMATIVE INSTITUTIONS (4)

The data base contains some highly influential institutions such as the University of California (Berkeley), Boston University, Cornell University, the University of Tokyo, City University of Hong Kong, ETH, the University of Manchester, Lund University, the University of Milan, etc.

The question that therefore emerges is: How can government policy and incentive systems such as funding mechanisms acknowledge this and encourage university actors to pursue a much broader development agenda founded upon place-based sustainability needs? This is the task/headache for the influential organizations such as OECD and the World Bank.

What we have today?

Indeed, most colleges and universities have begun to reduce energy use, material waste, and adopt higher performance standards for buildings – what is called the "greening of higher education". The movement has grown throughout higher education, because it was economically smart and also the "right thing to do". Yet the ecological and social assumptions, and our conversations about curriculum changes are so trivial and forgettable. We argue a great deal over credit hours, parking, salaries and benefits, and standards and marketing/promotion – anything but how our disciplines intersect with the fate of humankind on a deteriorating Earth.

If you want to go fast, go alone.
If you want to go far, go together.

~ African Proverb ~

Journey to FUTURE

- Like any journey, there are decisions to be made. What to take, what to leave behind? When hard times come along the way, who will make the decisions and by what means and what standards? Will we govern by triage and leave the wounded behind? We are, in short, starting the largest , longest, most complex, and crucial transition in human history unprepared and disorganized, And it is beginning as a free for all (*David W. Orr „Dangerous years, 2016)*

Superstitions

The most obvious superstitions that multiply like rabits are:

- Consumption makes our lives better;
- More stuff makes us hapier;
- Piling up mountains of stuff makes us a better nation;
- The GDP accurately measures our prosperity;
- Our expenditure of $1 trillion on „defence“each year makes us safer;
- Owning guns makes a safer society.

Billionaires & broken dreams (I)

In 2006 Al Gore ("An Inconvenient Truth") gave personal PowerPoint presentation to Richard Branson ("Virgin Group"). He pledged to spent roughly $3 billion over next decade to develop biofuels as an alternative to oil and gas to battle climate change.

Bill Clinton "groundbreaking, not only because of the price tag – which is phenomenal- bur also because of the statement that he is making".

In 2007, he was back in the news with "Virgin Earth Challenge"- a $25 million prize to the first inventor to figure out on how to sequester one billion tons of carbon a year " without countervailing harmful effects". He said, if these competing geniuses crack the carbon code, the "doom & gloom" scenario vanishes and we "can drive our cars, we can fly our planes, life can carry on as normal".

Billionaires &broken dreams (II)

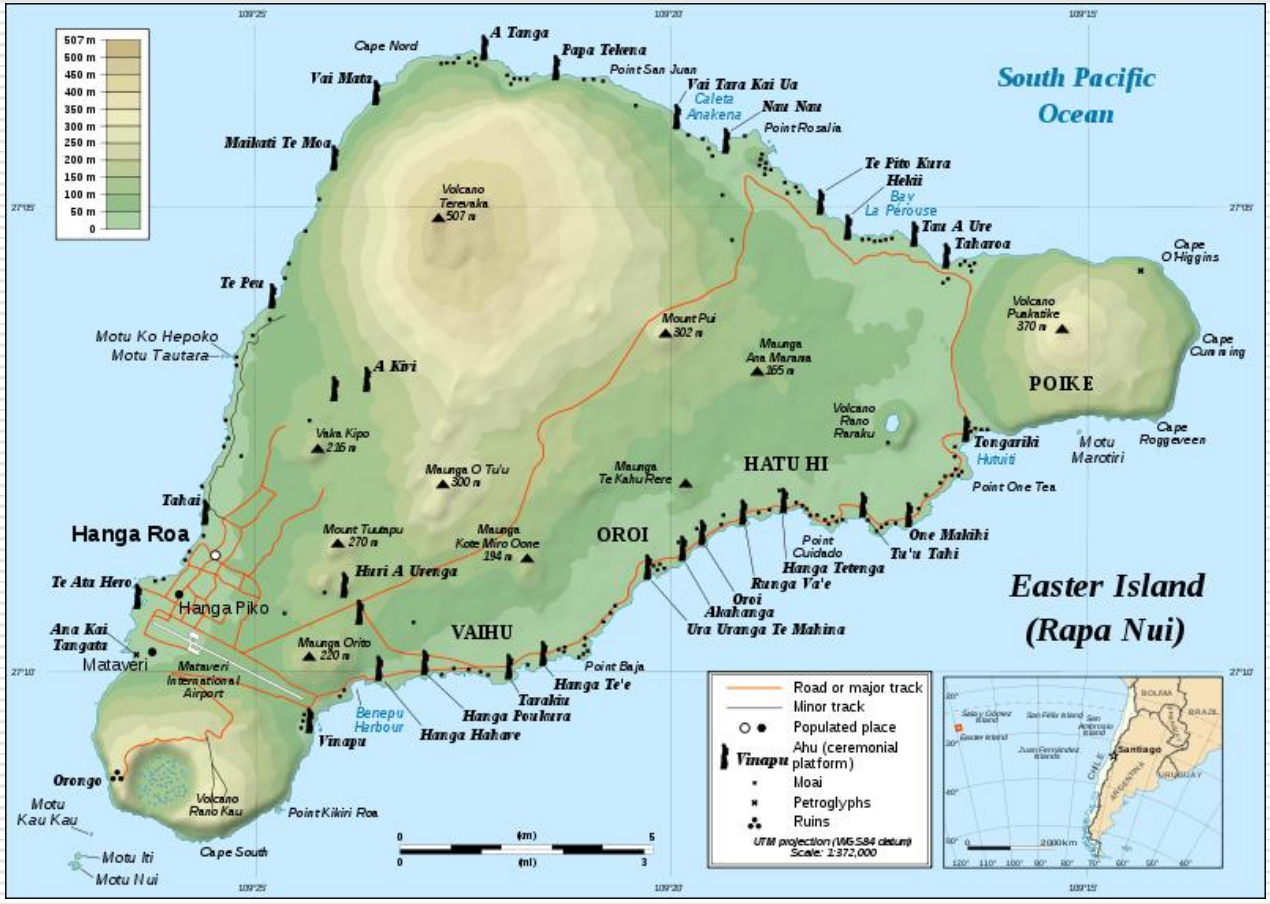
In 2009, he launched Carbon War Room" – Industry group looking for ways to low their emissions voluntarily. "Carbon is our enemy. Let's attack it in any possible way we can, or many people will die just like in any war" – he declared.

Result: "I don't think that he made a lot of investments in the climate change space. But the fact that he is passionate about it is a good thing" Jigar Shah , supporter. The pledge turned into "gesture".

More similar billionaires: Warren Buffet, Michael Bloomberg, Bill Gates, etc.


TAKE IT FROM ME, SON,
POLLUTING IS BAD FOR YOU
North
South
CHAPPATTE
Int'l Herald Tribune

Easter Island



Easter Island

- Legend say that king Hoto Mat landed his canoe thus beginning the occupation of Easter Island 1300 years ago
- The first islanders found a lush island, filled with giant palms and rich volcanic soil. In 1550 the population was between 7000 and 9000
- There were distinct clans, one thing tied them all together – the statue construction and the cult that formed around it
- Named Easter Island by Dutch explorer Jacob Roggeveen, who first landed there on Easter Day, 1722
- When the islanders ran out of resources, they threw their idols down and started killing each other.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Conclusions (I)

*A jewel of an island floating in a endless sea;

*A seemingly never-ending supply of raw materials;

*Technological advances;

*Population growth;

*Depletion of resources;

*War. Collapse. Sound familiar?

The Easter Island story is a story for our times. We too are on an island floating on an endless sea

Conclusions (II)

There are parallels between the islander's attitude towards their environment and our own, and this is the most frightening part of the story.

As our own forests fall to the buldozers, there are many who valiantly trying to save them. It is obvious, now that we have sattelites showing us the massive deforestation, that there is a serious problem. And yet our leaders- and even the majority of individuals – look on unconcerned. They appear willing to buldoze the last tree to build the "moai" of our time – technology and development.

What to do? (I)

- The First is a requirement that no one should graduate from any school, college or university without a firm grasp of how the world works as a physical system and why that is important for their lives. In short, we should equip them with the capacity to integrate disparate subjects and disciplines into a coherent and ecologically grounded worldview.

What to do? (II)

- The Second, colleges and universities should not only advance the education of others, but also themselves continue to learn how the ecosphere works as a physical system and to become more responsible within that system. More than any other institution, colleges and universities have an obligation to preserve the habitability of the planet that their graduates will inherit.

Conclusions (III)

Will we have the sense to reconcile our lifestyles with the well-being of our environment, or is the human personality always the same – as that of the person who felled the last tree.

Only two things are infinite: the universe and humanstupidity, but I'm not sure about the former (A. Einstein)

There is no future without the past (*with the condition that people will learn something from the past)*

Empowered Life Years (ELY)

- Desire for longer life weighted with empowerment indicators (literacy, health, being out of poverty, wellbeing/happiness)
- ELY (*health, cognitive, emotional, and material dimensions):*
  - healthy life expectancy;
  - literate life expectancy;
  - happy life expectancy;
  - poverty free life expectancy.

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PARADOX OF TIME (1)

- We've write more, but learn less, we plan more, but accomplish less;
- We have learned to rush, but not to wait;
- We built more computers to hold , to produce more information, to produce more copies than ever, but we communicate less and less;
- We drink too much, smoke too much, spent to recklessly, laugh too little, drive to much, get too angry, stay up too late, get up too tired, read too little, watch TV too much, and pray too seldom;
- We have multiplied our possessions, but reduced our values. We talk too much, love too seldom and have hate too often.

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PARADOX OF TIME (2)

- These are times of fast food and slow digestion, big man and small character, steep profits and shallow relationships. These are the days of two incomes but more divorce, fancier houses, but broken homes.
- These are the days of quick trips, disposable diapers, throwaway morality, one night stands, overweight bodies, and pills that do everything from cheer, to quiet, to kill.

PARADOX OF TIME (3) REMEMBER

- Spend some time with your loved ones, because they are not going to be around forever;
- Give a warm hug to the next to you because that is the only treasure you can give with your hearth and it doesn't cost a cent;
- Give time to love, give time to speak and give time to share the precious thoughts in your mind.

(Carlin / Dickson, 1995)

Conclusions (III)

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Only two things are infinite: the universe and humanstupidity, but I'm not sure about the former (A. Einstein)

There is no future without the past (*with the condition that people will learn something from the past)*

History knocked on your door, did you answer?

Rachel Carson:

„We are part of the environment, and our economy, health, and lives all depend upon it“.


THANK YOU
HAVE A SAFE
SAILING