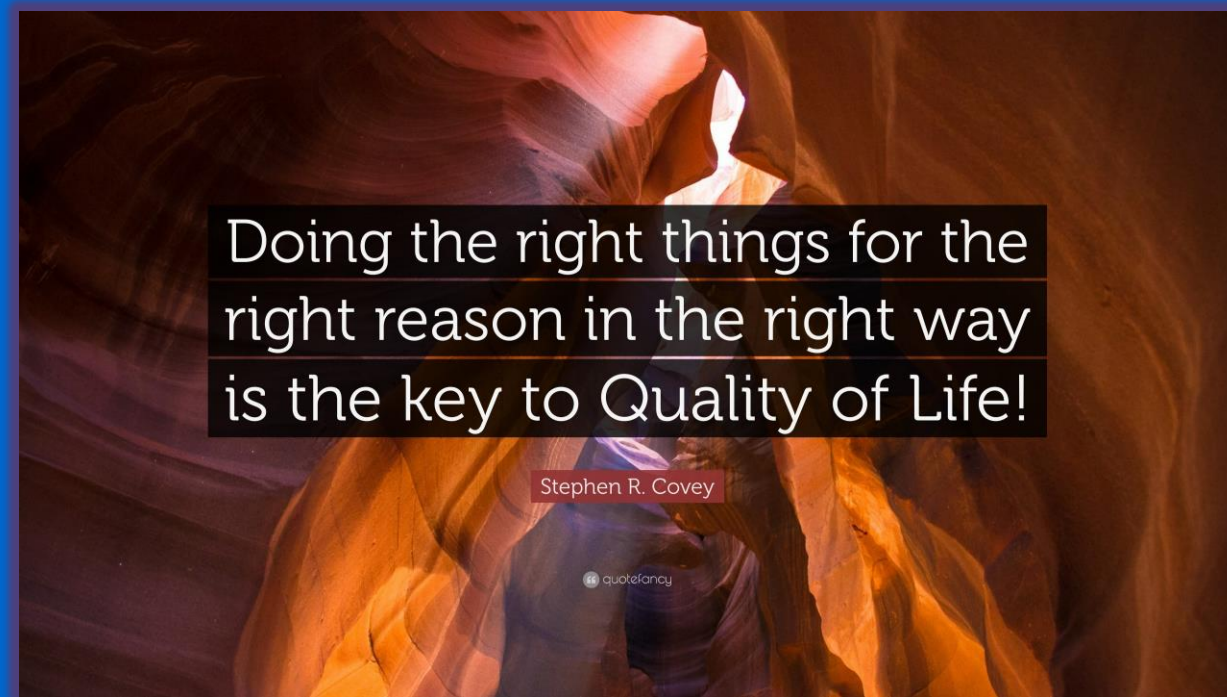


Eleonora Escalante, MBA - MEng

Strategic Corporate Advisory Services

Creating Corporate Integral Value (CIV)

Leg 7. Trends in Competitive Advantage. Industry 4.0: Only if it improve the citizens' quality of life



→ Leg 7. From Auckland to Itajaí

OUTLINE Leg 7. Trends in competitive advantage

01

*A whole change
for the world:
Industry 4.0*



02

*Education as a
competitive
advantage for
Industry 4.0*



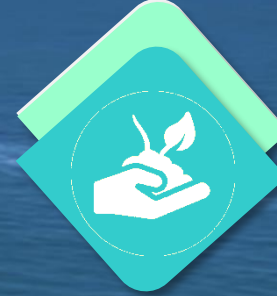
03

*World Changing
Technologies for
competitive
advantage?*



04

*If it doesn't
improve citizens
quality of life, it is
not competitive
advantage.*



05

*If it doesn't reduce
citizens poverty, it
is not competitive
advantage*



06

*Summary and
Conclusions*



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OUTLINE Leg 7. Trends in competitive advantage

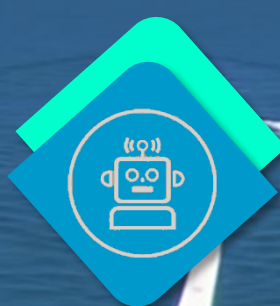
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**We are
here!**

05
*If it doesn't reduce
citizens poverty, it
is not competitive
advantage*



06
*Summary and
Conclusions*



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Industry 4.0: Only if it improve the citizens' quality of life

What is quality of life? Several meanings and several measures to calculate it.

- Someone's quality of life is the extent to which their life is **comfortable** or **satisfying**. It is the general **well-being** of a person or society, defined in terms of health and happiness, rather than wealth. **Collins English Dictionary**.
- The standard of health, comfort, and happiness experienced by an individual or group. **Oxford Dictionary**.
- Quality of life describes the **happiness**, **independence** and **freedom available** to an individual. **Merriam Webster Dictionary**.
- Daily living enhanced by wholesome **food** and **clean air and water**, enjoyment of unfettered open spaces and bodies of water, conservation of wildlife and natural resources, security from crime, and protection from radiation and toxic substances. It may also be used as a measure of the energy and power a person is endowed with that enable him or her to enjoy life and prevail over life's challenges irrespective of the handicaps he or she may have. **Businessdictionary.com**
- The level of **satisfaction** and **comfort** that a person or group enjoys. **Cambridge Dictionary**.





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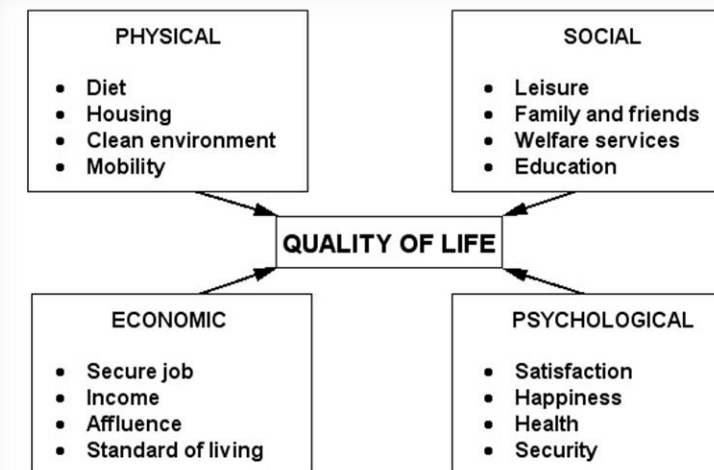
Industry 4.0: Only if it improve the citizens' quality of life

Even if you gather all the dictionary definitions of quality of life, still it is a subjective theme of attention.

Many entities aim to define the term QOL or Quality of Life, through a comparative index. These organizations have established indexes or indicators of QOL, or happiness or live-ability.

The majority of these indexes have been developed over the last 25 years (with quasi-similar names). Some of the most relevant rankings have been done by:

1. **The World Bank**, through the World Data Bank Indicators
2. **OECD**: The OECD Better Life System and How's life?
3. **Mercer Consulting**: Mercer Quality of Living Report
4. **European Union Stats System**: Quality of Life Indicators European Union
5. **United Nations**: Human Development Index
6. **New Economics Foundation**: Happy Planet Index
7. **United Nations Sustainable Development Solutions Network**: World Happiness Report
8. **US News in partnership with Y&R, BAV Group and Wharton School**: Best Countries Ranking of QOL
9. **The Economist Intelligence Unit**: The Economist Quality of Life Index, Where to be born index, Global Live-ability Ranking Index, and others.
10. **Henley & Partners – Kochenov**: Quality of Nationality Index



There are national, regional and, global rankings. Search for them at the internet!.

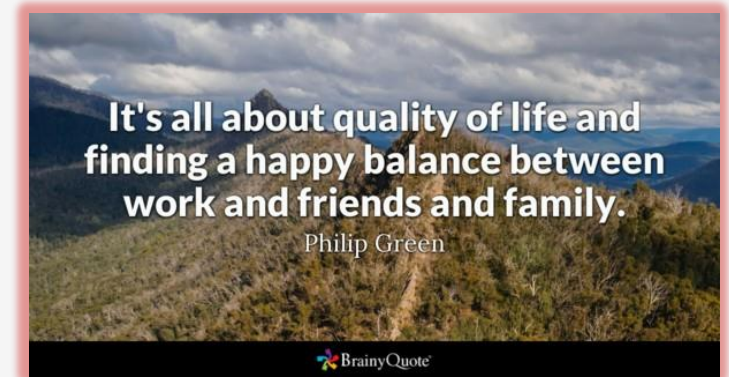
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Industry 4.0: Only if it improve the citizens' quality of life

Each index has its own particularities. Methodologies used to filter the data and calculate it. On in on it is quite subjective with certain variables.

1. Each of the measures established to find an indicator or index is different.
2. Some establish the term quality of life as a measure of happiness, but the term happiness is a subjective matter. Some of the factors included in each index are subjective and may fluctuate according to each person beliefs and values:
 - Life satisfaction
 - Psychological states
 - Level of Independence
 - Religious beliefs
 - Sense of optimism and personal expectations of goals' accomplishments
3. Other factors are more objective such as physical health, education, family, wealth, housing quality, local services, transportation, employment, environmental conditions, etc.

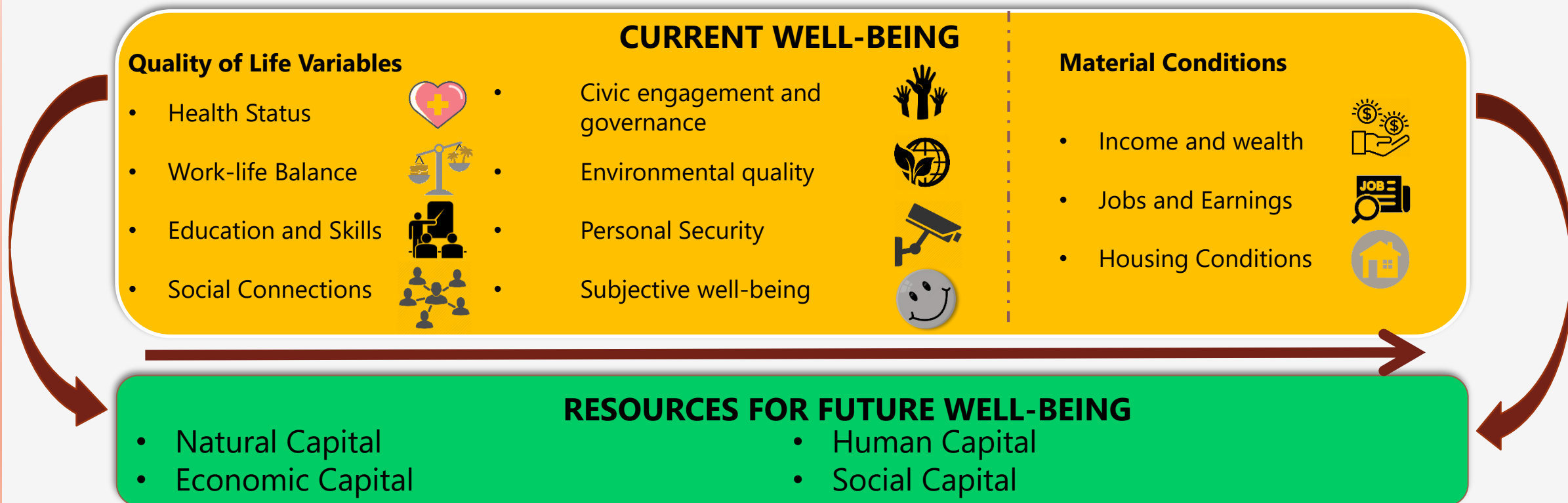


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Industry 4.0: Only if it improve the citizens' quality of life

The OECD has established a well-being framework to measure the quality of life for the OECD countries:



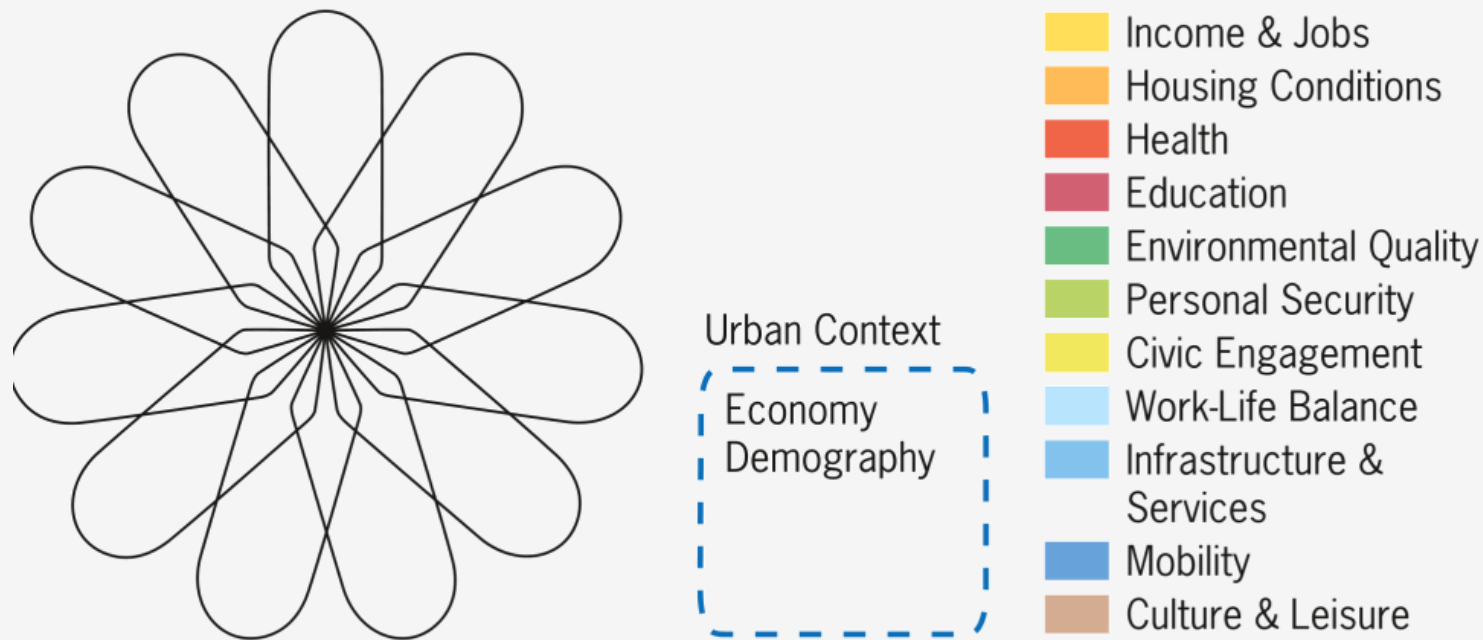
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Industry 4.0: Only if it improve the citizens' quality of life

Switzerland has defined its quality of life dimensions based in the OECD Framework:

Quality of life dimensions



- It grabs my attention that **Switzerland** has used the OECD Well-being Framework as a base to define their own Quality of Life model.
- **Switzerland** is always ranked in the first tier (top 10 in each of all the QOL index rankings).
- Usually West European countries are always at the top, plus Singapore and Japan. See the following slides.

Source: OECD (2014), How's Life in Your Region?: Measuring Regional and Local Well-being for Policy Making, OECD Publishing, Paris;
Design adapted by the FSO

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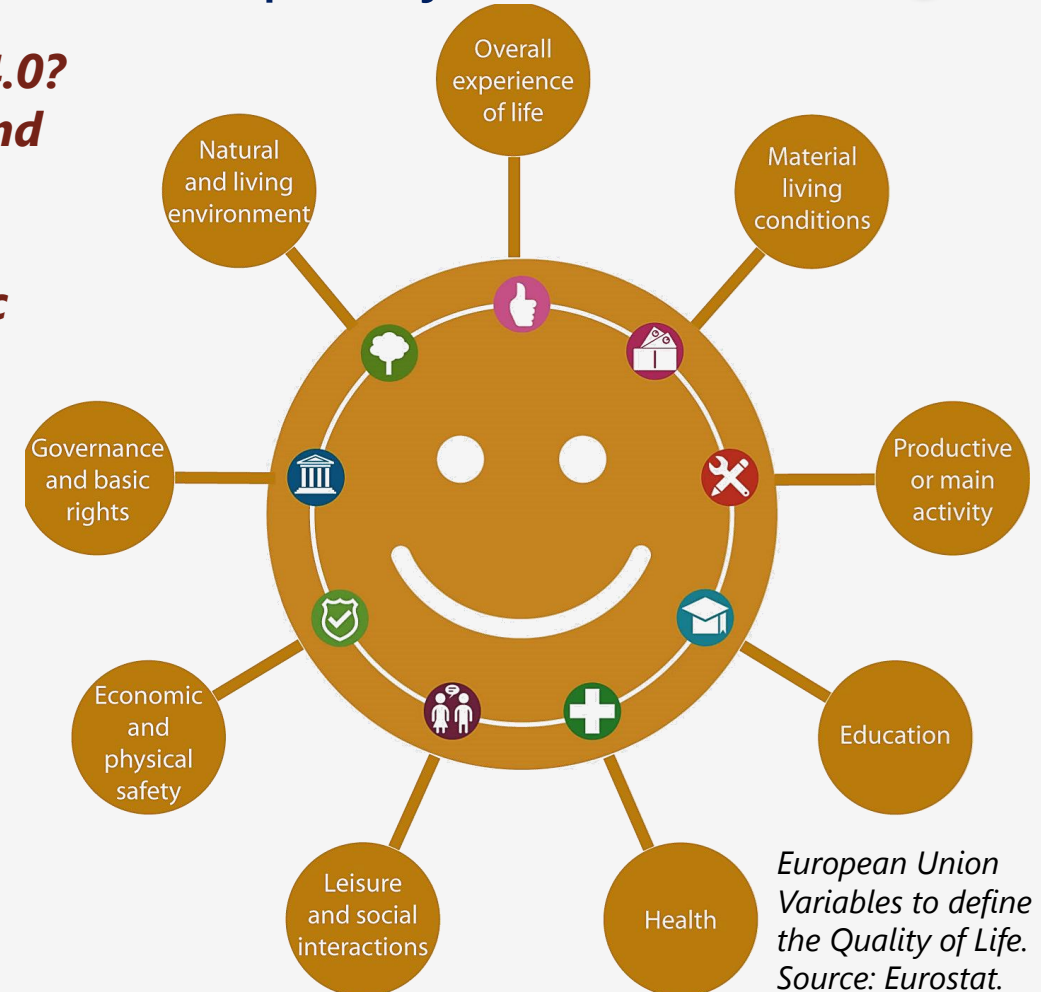


Industry 4.0: Only if it improve the citizens' quality of life

- ***Why do we wish to initiate and deploy Industry 4.0?***
- ***Is it because we wish to advance our humanity and improve the quality of life (QOL) in each of the countries participating on it?***
- ***Or are we doing it JUST because of the "economic value of productivity and competitiveness"...***



Is it quality of life to let the future generations to be treated as guinea pigs for Industry 4.0 economic model?



*European Union
Variables to define
the Quality of Life.
Source: Eurostat.*



Industry 4.0: Only if it improve the citizens' quality of life

Industry 4.0 is the German approach to improve productivity and efficiency in the industries by using emerging technologies. Does this model improve the Quality of Life of the humanity? Or is it being designed just as a new "economy" model without considering the Quality of Life Parameters?

- Industry 4.0 is a proposal from Germany.
- Its objective is to boost communication between people, machines and resources in order to transform centralized production control processes to a decentralized autonomous model.
- The Industry 4.0 Working Group has recommended training and continuing professional development as one of the priority areas for actions within the industry 4.0 implementation.
- **Eleonora Escalante Strategy** recommends a holistic, balanced and moderate perspective on Industry 4.0. Education has to be the beginning. It will take more than one generation to start to be ready just in education (between 20 to 30 years)



Is this
Quality of
Life?

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Helpful
Tips

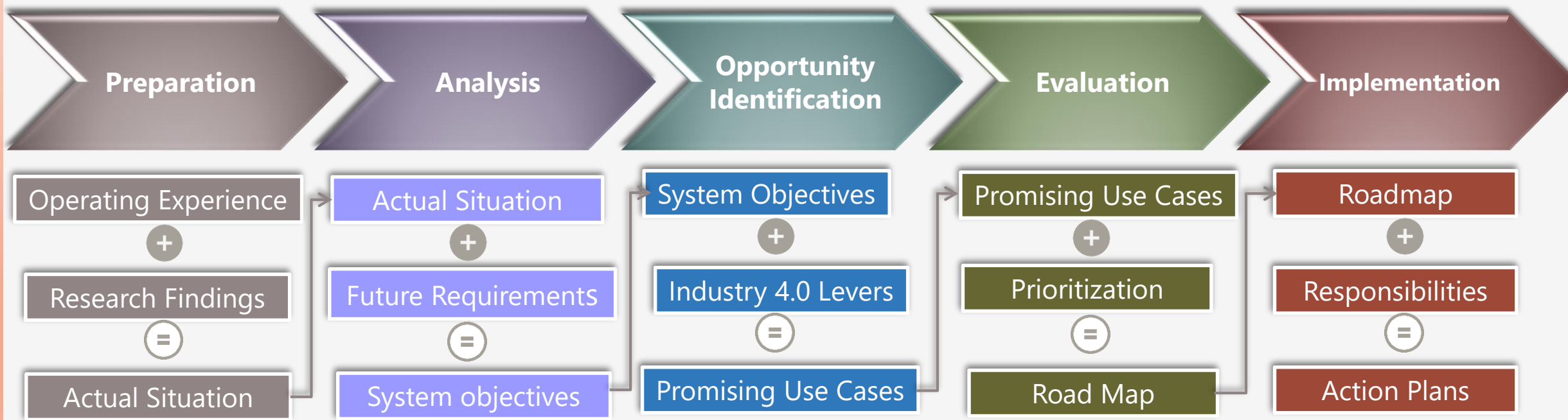
Remember: EDUCATION Comes first. I recommend before anything else, to redesign the educational system by following this or similar frameworks of educational reforms.



Industry 4.0: Only if it improve the citizens' quality of life

Before starting, Education must be also follow a procedure of reform and evolution.

One proposal on how to successfully implement Industry 4.0 in working environments has been made by TU Graz LeanLab recently: It is the following.



Procedure to an Industry 4.0 Learning Factory at TU Graz. Source: 7th Conference on Learning Factories, CLF 2017 "Transition towards an Industry 4.0 state of the LeanLab at Graz University of Technology, Austria"

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Industry 4.0: Only if it improve the citizens' quality of life



THANK YOU!

The Gen Z will have the worst environmental, social, political and economic problems in history. If Baby Boomers, Gen X and Gen Y do not start to solve them from now.