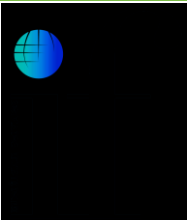


# First Smart and Sustainable Development Convention

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**The Cyprus Institute, Nicosia,**

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**THE CYPRUS  
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Active

>25

Projects

Founding



Massachusetts  
Institute of  
Technology

Partnership





# Sustainable Development

- In 2016 the **UN 2030 Agenda for Sustainable Development** officially came into force
- Aims in ending all forms of poverty, fight inequalities and tackle climate change



## SUSTAINABLE DEVELOPMENT GOALS





# Sustainable Development

## Definition of Sustainable Development

*"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."*

Bruntland Commission

(World Commission on Environment and Development, 1987)



# Sustainable Development

- This widely accepted definition of “Sustainable Development” is *fundamentally flawed!*
- Whose “needs” are we to meet?  
Everyone living like Americans?  
Or Ethiopians?
- Without being able to define “needs”, this definition cannot lead us to specific actions.

*"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."*

Bruntland Commission



# The Ultimate basis of “Sustainability”

- *First, understand the rules by which the planet works.*
- *Second, learn to adapt human activities to those rules.*
- *Third, define “sustainability” in agreement with this.*





# Sustainable Development

## An Earth-Systems definition of “sustainability” that can work

- *"To say that a development is "sustainable" means, at least, that its patterns of production and consumption can be reproduced indefinitely without doing irreparable damage to essential natural ecosystems".*

Earth-Systems



# Energy and Sustainable Development

☐ *Energy is one of the the main parameters that determines development, quality of life and environmental quality*



# Energy and Sustainable Development

Let us see if even the present use of fossil fuels can meet this fundamental requirement of “sustainability”



**All uses of energy end up with emissions into the environment, mostly the air.**



# Energy and Sustainable Development

- *A common and progressive problem-solving approach is needed with adapted strategies and tools aimed at reducing energy consumption and improving the environment.*



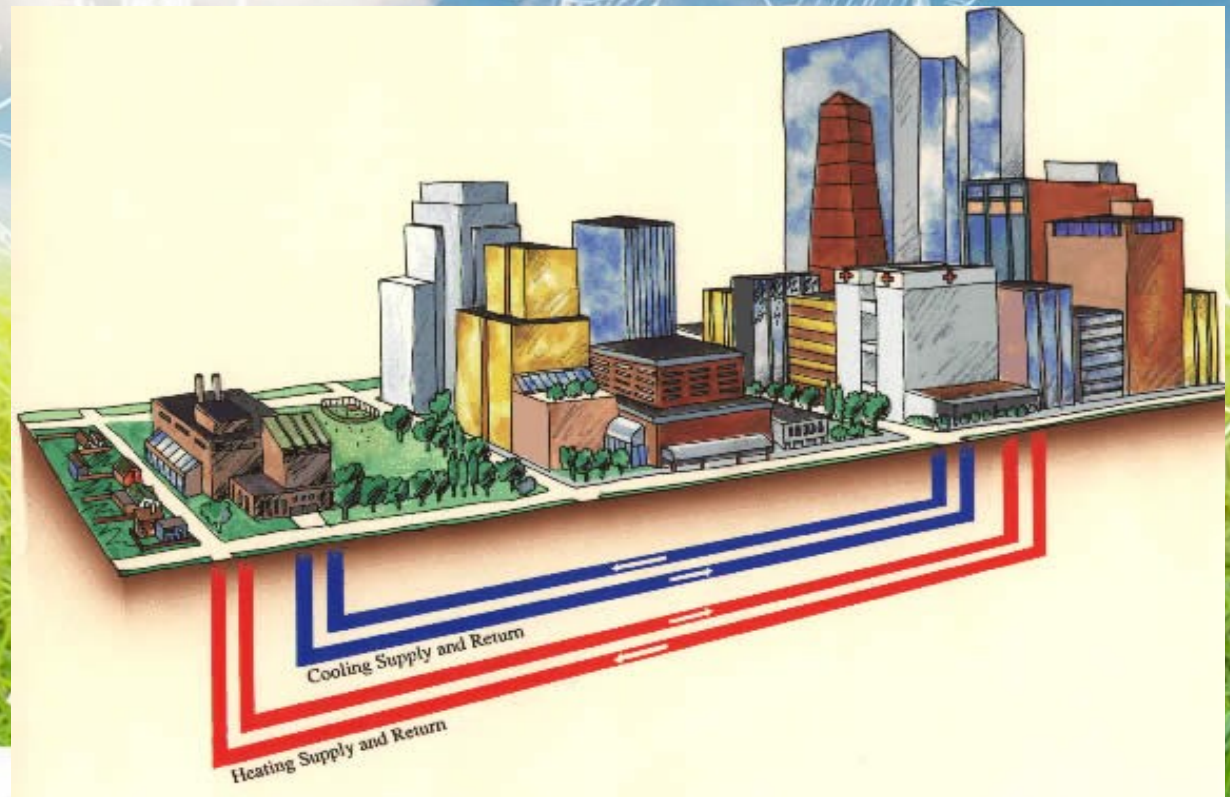


# Energy and Sustainable Development

## ***VIABLE ENERGY SYSTEMS***

*Adoption of sustainable energy supply systems, using renewable sources such as solar energy, wind, geothermal and biomass, (heating and cooling).*

*It is perhaps the most advanced and efficient strategy for penetrating viable energy options*





# Smart Technology and Sustainable Development

- ❑ *Techniques of this form have reached a very high level of maturity and already contribute to improving the energy balance of buildings, Smart Cities and beyond.*

A NEW APPROACH





# Smart and Sustainable Development

- ❑ *None of the above priorities should be addressed individually.*
- ❑ *The nature of the problems requires integrated, comprehensive theoretical and practical solutions. In other words,*

## A NEW APPROACH

- Reduce the international tensions, environmental pollution, and the dangers from global warming from energy production and use, and instead
- Provide jobs, energy resource security, energy cost stability, ecological sustainability, and a clean environment, for our children and their children
- From the inexhaustible, renewable resources on our own land.





# Smart and Sustainable Development



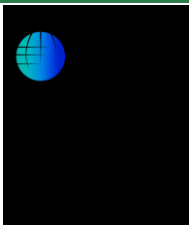
*"Treat the earth well.  
It was not given to you by your  
parents. It was loaned to you  
by your children."*

Kenyan Proverb



**THANK YOU!**

*Prof. Despina Serghides*



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