

## The Norwegian - Ukrainian Co-operation on Climate Project's Development in Ukraine

«Business Planning  
for Climate Projects»

Combined Training and  
Projects Development Programme

Dec'2008 – May'2009

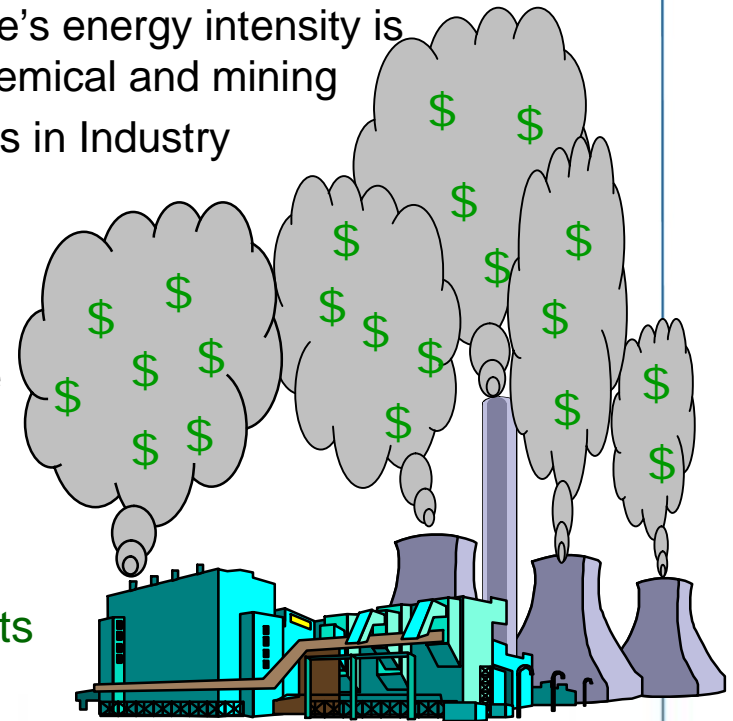


## Ukraine - “Saudi Arabia of energy efficiency”, IEA”

Ukraine is 50% more efficient now than it was in 1996 mostly due to increases utilization of existing production capacity. However, Ukraine’s energy intensity is 2.5 times higher than the EU average. Energy, petrochemical and mining industries are the main sources of GHG emissions in Industry

The costs for energy becoming **an increasing economic burden** because of high consumption and increasing tariffs (e.g., gas price has jumped since 2005 from 50 to 350 USD per th.cub.). Energy costs 2006 will further increase

Currently, a structure exists for funding climate projects through the Joint Implementation (JI) mechanism (track 1 and track 2). Many projects fail due to lack of local experience and projects development skills



## Example - Steel sector

- Ukraine's steel sector very competitive due to rich and cheap iron ore and coke.
- Steel products account for 36% of Ukrainian exports and 25% of industrial production.
- Ukraine 7<sup>th</sup> largest steel producer in the world and 3<sup>rd</sup> largest exporter after Japan and Russia.
- Export = 74% of output in 2004.
- Historically high steel prices encouraged modernization investments in the sector world wide.
- Sharp fall in metal prices in 2008. Rising energy prices.
- As a result, a massive drop in metal production ( e.g., 40 – 50% in steel making)

## Aim of the Norwegian Co-operation

**Aim :**

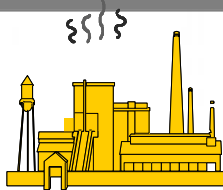
**Contribute to abatement of GHG emissions in Ukraine**

**By :**

**Building capacities of local specialist for development of Climate Projects**

**Climate projects:**

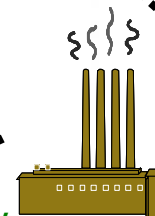
Various energy efficiency, renewable energy and environmental projects lead to significant reduction of GHG emissions. They often are related to complex technical and economic solutions, implementation of innovative technologies and methods, large investments.



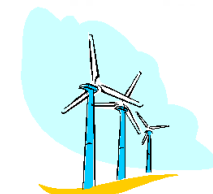
Heat and power systems



Buildings



Industry



Renewable sources

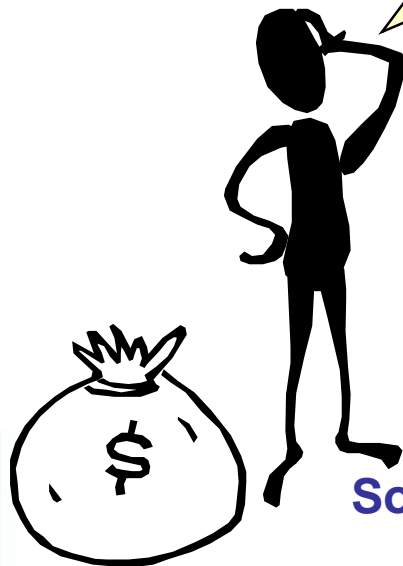
# Obtaining for Financing for Climate Project

**International Financiers**

**Owners of good projects**

High risk profile,  
Lack of applications

It is impossible  
to obtain financing



**Solution: Capacity Building on Project Development**

**...to attract carbon financing, thus supporting more projects to be implemented in private and public sectors**

# The Concept of the Norwegian Assistance

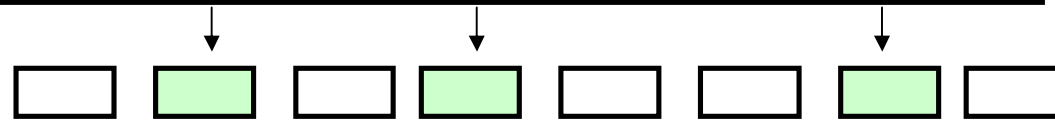
Information seminars



Ideas Generation



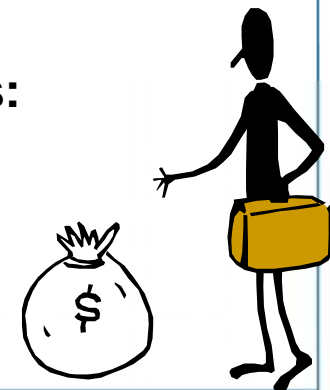
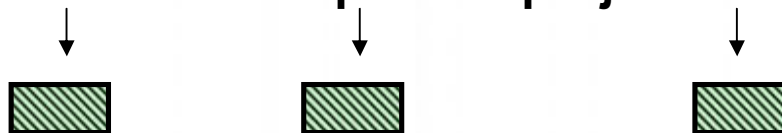
Data collections and selection of good ideas



Business Plan Preparation

Presentation of projects to potential investors:

Follow-up of the projects:



## Projects Identification

- ✓ **Information Seminars**
  - ✓ Metallurgical and chemical industries
  - ✓ Municipalities
  - ✓ Consultants
- ✓ **Several places**
  - ✓ Kiev
  - ✓ Ivano-Frankovsk
  - ✓ Donetsk
  - ✓ Zaporozhje
  - ✓ Dnepropetrovsk
- ✓ **Extensive training and assistance**



## Examples of some of the previously projects

Projects	Investment USD	Financing	Implem.	Potential for GHG emission reduction t.e.CO <sub>2</sub> -crediting period
Zaporozh Alluminiy – better EE of alumina production	1 650 000	Equity	2008	154 000
Zaporozh Koks – recycling of coke gas in CHP Units	7 000 000	Equity	2008 - 2009	360 000
Zaporozh Ferrosplav – waste ferro-gas recycling and better EE	To be clarified	Equity/Loan	2008 - 2009	Partially calculated – 183 000
Ivano-Frankovsk Biogas Plant	6 400 000	Loan	2011	81 000
Kremenchuk Thermal and Power Plant – EE improvements	22 639 000	Loan	2008 – 2011	212 000
Municipal Heating Networks of Zaporozhe – utilization of waste gas	1 885 000	Equity	2009	120 000
Smela CHP generation facility	7 700 000	Loan	2009	162 000
Ivano-Frankovsk Street Lighting project	Not Available	Equity	2008	7 500

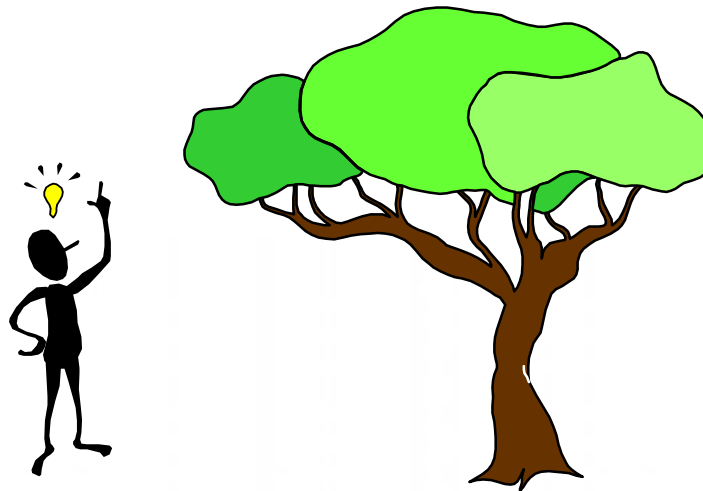


## **Business Planning – How to attract financing for climate projects?**



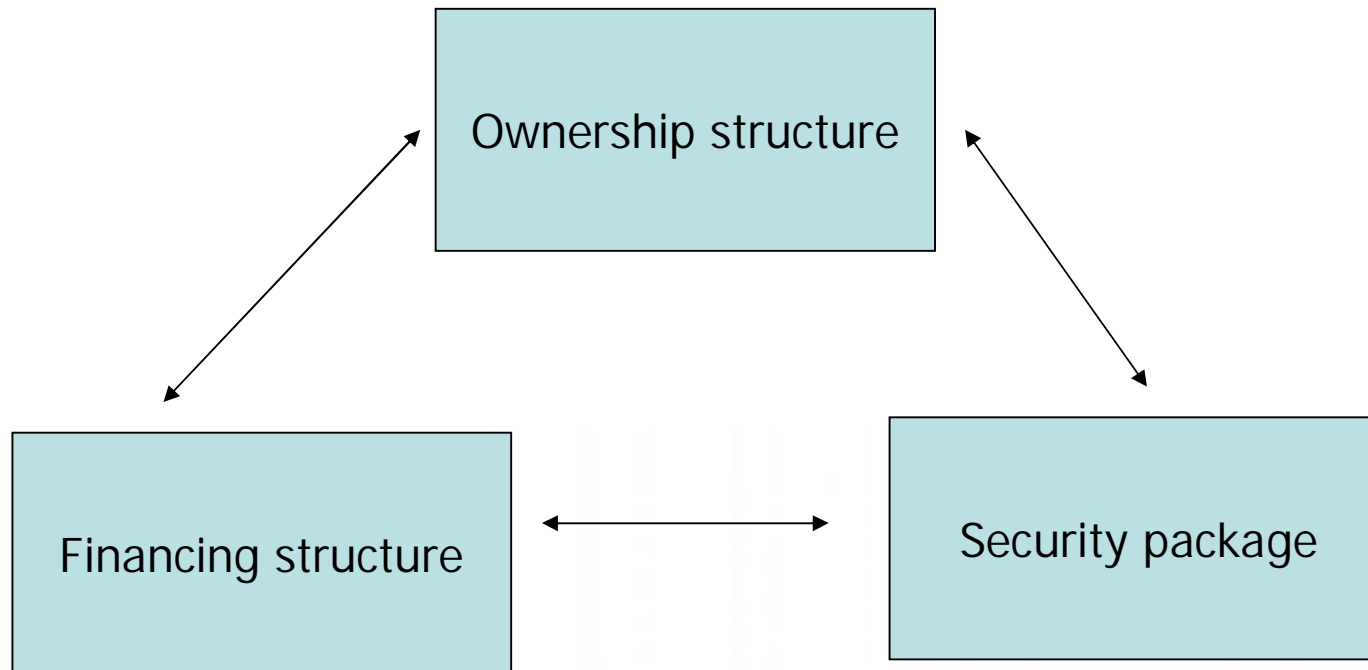
## Development of Climate Projects Important Considerations

- What must be in place before sale of CO<sub>2</sub> emission reductions could be organised ?
- What should be arranged to follow the extremely complicated JI rules and procedures ?

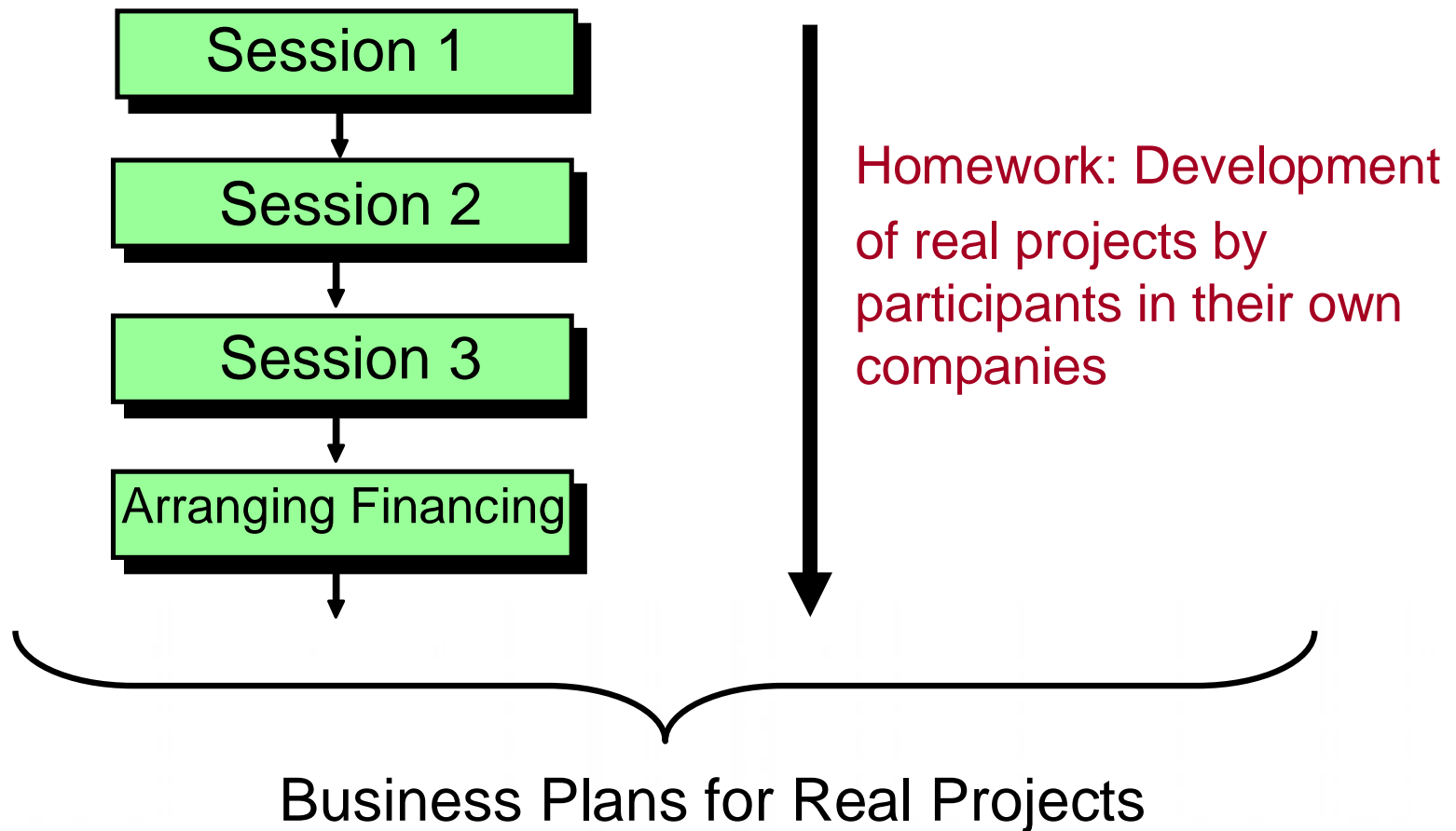


## Critical elements of project development engineers pay little attention to:

### Structuring the financing package



## Combining Training and Projects Development



# “Business Planning of a Climate Project”

## Combined Training and Project Development Programme

### Aim:

Train project developers on Business Planning for Climate Projects to facilitate **financing** of more projects

- ✓ Prepare estimates of CO2 Emission Reductions
- ✓ Verify various institutional aspects of your project
- ✓ Develop 1st. version of Business Plan
- ✓ Collaborate on further development and arranging financing

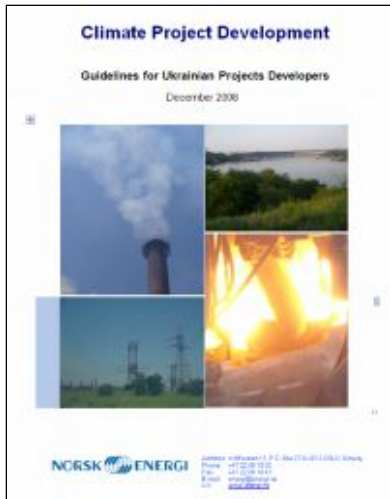


## Business Plan - Content

1. **Executive Summary**
  2. **Project Partners**
  3. **Project Information**
  4. **Viability of Technology**
  5. **Economic Calculations**
  6. **CO2 calculations and Environmental Benefits**
  7. **Market**
  8. **Financial projections and risk assessment**
  9. **Project Implementation**
- Annexes**

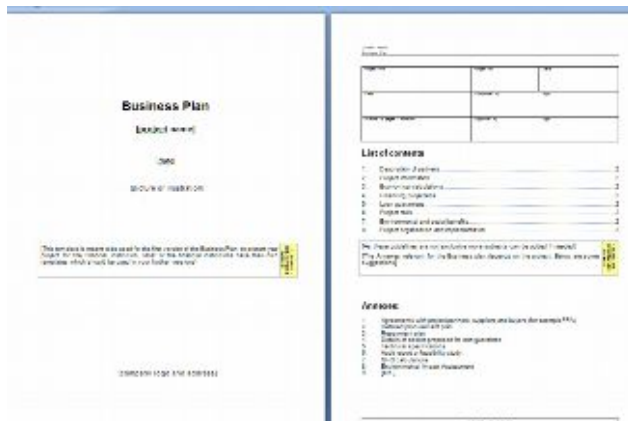
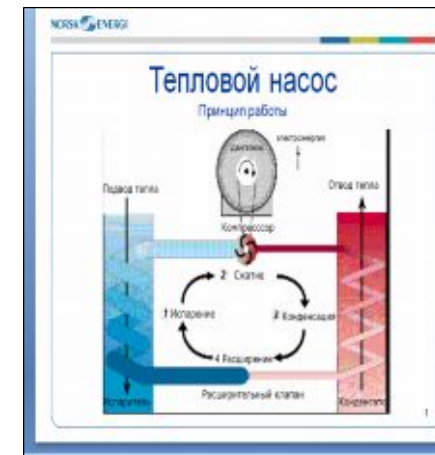


# A package of tools and information materials



➤ Guidelines for projects development

➤ A set of thematic presentations



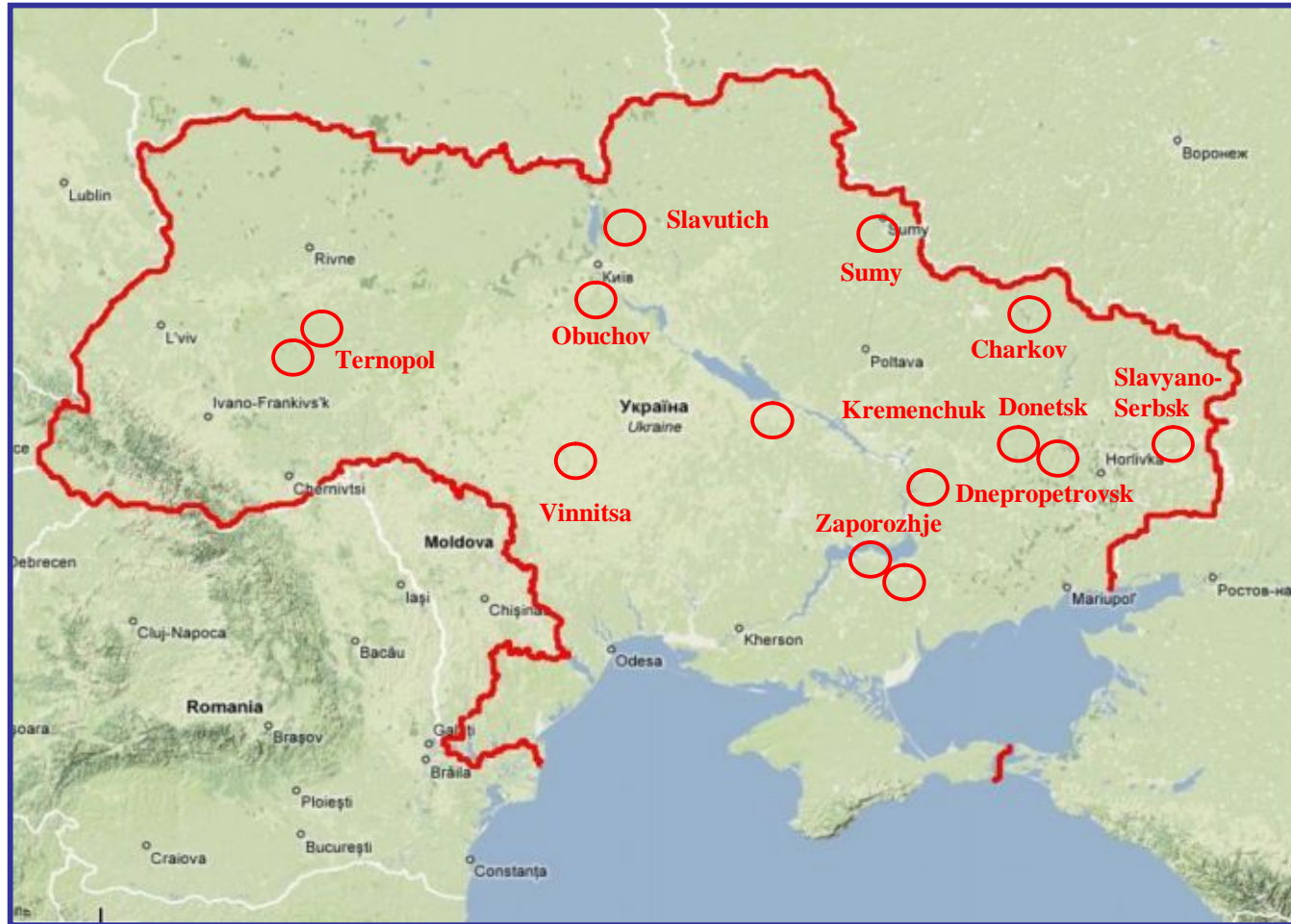
➤ Templates and specific calculation methods

# Training Process





# Location of our projects



# Norwegian Programme in Ukraine

## Lessons learned

- ✓ Awareness and experience in EE is better than in RE
- ✓ Local specialists have good technical skills to develop large projects, but some technologies, esp. RE are not locally known
- ✓ Preparation of Business plans is still an issue
- ✓ Importance of institutional arrangements are often underestimated
- ✓ Several companies have interrupted their plans due to crisis, this have had an impact over the projects that had been prepared
- ✓ Local companies have little belief in Authorities

# Norsk Energi - Norwegian Association of Energy Users and Suppliers

Effective, environmentally friendly and safe utilisation of energy

[www.energi.no](http://www.energi.no)

