



The National Fund for Environmental Protection and Water Management

Financing energy efficiency and RES: The Polish experience

**Maria Urbowicz
Adviser, NFEP&WM**

Riga, September 11, 2014



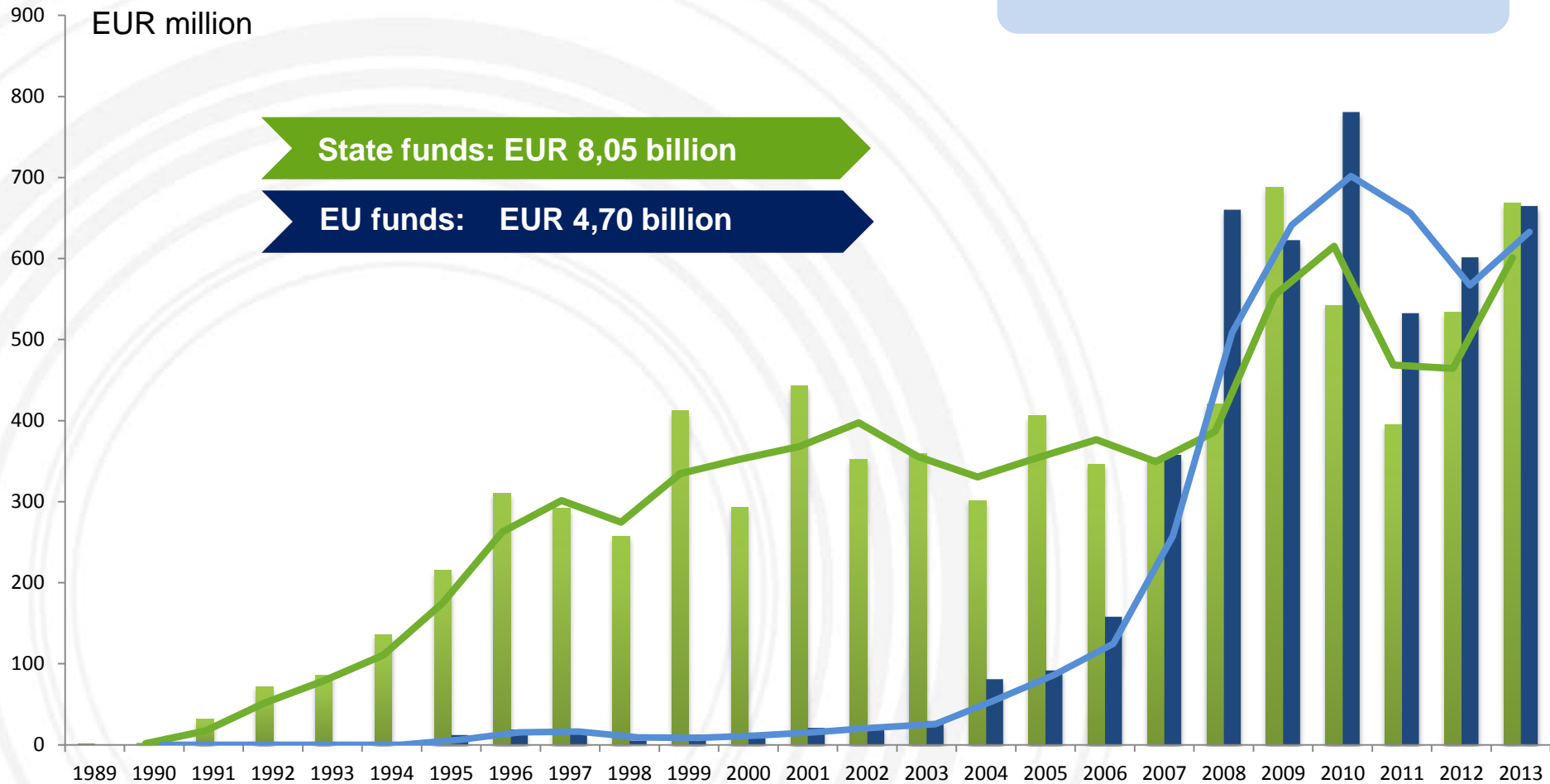
The National Fund for Environmental Protection and Water Management



- **25 years of experience** in financing projects in the area of environmental protection;
- established during the period of political changes of **1989**;
- state agency
- approximately **550 employees**, including more than 200 engineers;
- worldwide **unique** key component of the system of environmental funds and **pillar** of environmental protection;

Funds disbursements

Total: EUR 12,75 billion





Portfolio

- Grants
- Loans (investment, bridge)
- Interest rate subsidies
- Capital investments & equity
- Interest rate or bonds price redemption subsidies
- Partial repayment of bank loan capital
- Partial loan redemption
- Project finance





Financial engineering

- Revolving funds

- Financial leverage

- Mixing different instruments

- Market stimulation

- Synergy of actions

- Close cooperation & joint projects
(EBRD, EIB, Polish banking sector)

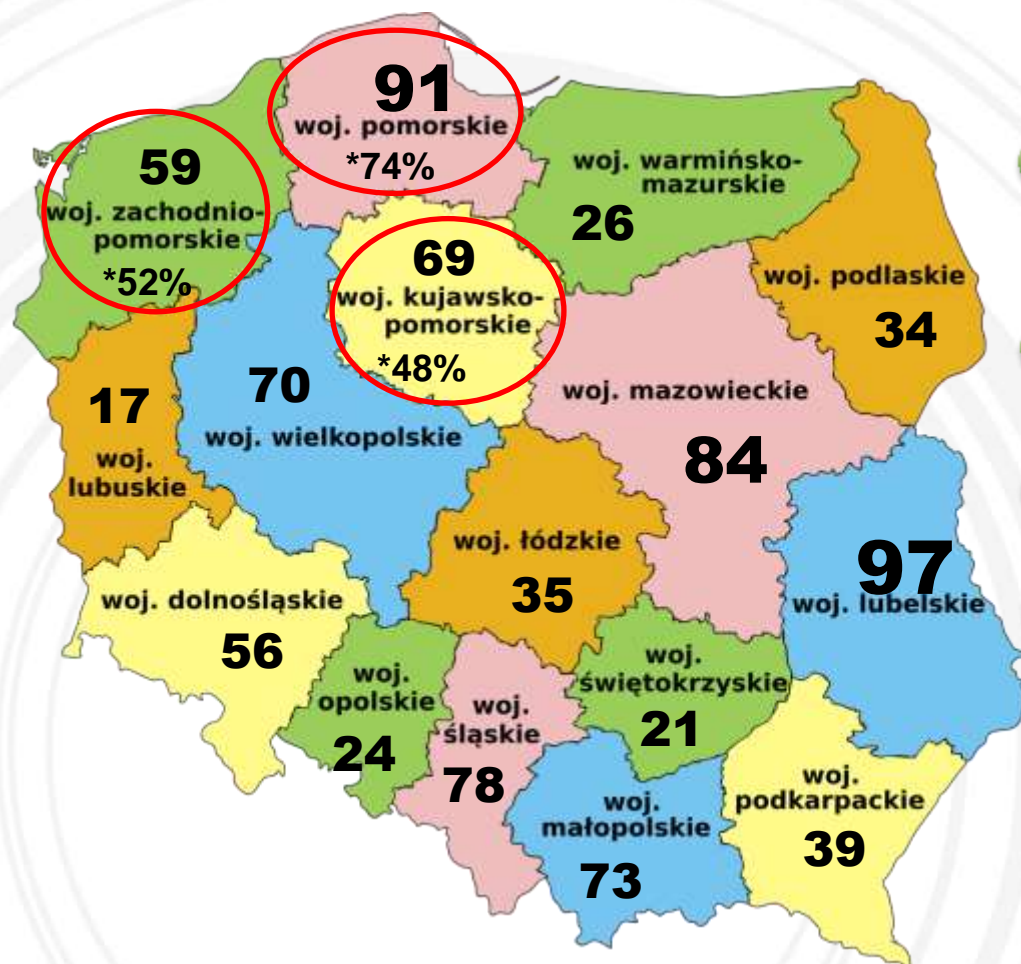




Barrieres

- Asymmetry of information (Directives, future obligations, access to technology, cost of technology)
- Lack of systematic access to long term financing structured on market based needs
- High transactional costs
- Regulated energy prices
- Lack of well-educated EE experts on the market – driven by a major failure – lack of market itself

Local low-emission energy plans



- Development the low-emission plans as well SEAP
- Budget: EUR 11 Million
- Grants up 85% of eligible cost
- 873 municipality was awarded the grant



Energy management in public buildings



Scope of the program:

- thermal modernisation of public buildings with replacement of the interior lighting with energy efficient solutions



Budget:

- Grants - EUR 120 mln from GIS
- Loans - EUR 192 mln from the National Fund,s resources



Beneficiaries:

- local government units, universities, health care institutions, NGOs, churches, the Volunteer Fire Department



Requirments:

- **the scope of thermal modernisation works has to result from energy audit**
- minimum total cost of the project – 0,5 mln euro



Energy management in public buildings

Financial incentives



- up to **30 % of eligible cost** or **30% grant +60 % loans** for 40 % annual reduction energy consumption for entire undertaking, including 30% reduction of energy consumption for heating buildings
- Variable interest rate - **WIBOR* 3 M +50 base point annually (3%)**
- Maturity – up to **15 years**
- Grace period - **18 months** from completion date of the project implementation
- Advance payment – **50% of grant**

* WIBOR - Warsaw Interbank Offered Rate



Energy efficient houses



Beneficiary:

- individuals building new houses
- individuals buying houses and apartments in multi-apartments houses from developers (housing cooperatives)



Obligatory measures:

- standards of the National Fund for energy savings in buildings



Financial incentive

- grant for partial repayment of the bank credit capital for construction / purchase of a house or buying an apartment



Goal: energy saving 94 000 MWh / year, the development of energy-saving technologies in Poland, capacity building, education through the construction of energy efficiency building

Energy efficient houses

Grant – financial incentive

Single – family building

Standard NF40
EUco ≤
40 kWh/year

EUR 7 300
grant for partial
repayment of
the capital of
loan for
beneficiary with
successfully
verified project
and ecological
effect

Standard NF15
EUco ≤
15 kWh/year

EUR 12 200
grant for partial
repayment of
the capital of
loan for
beneficiary with
successfully
verified project
and ecological
effect

Multi- family buildings

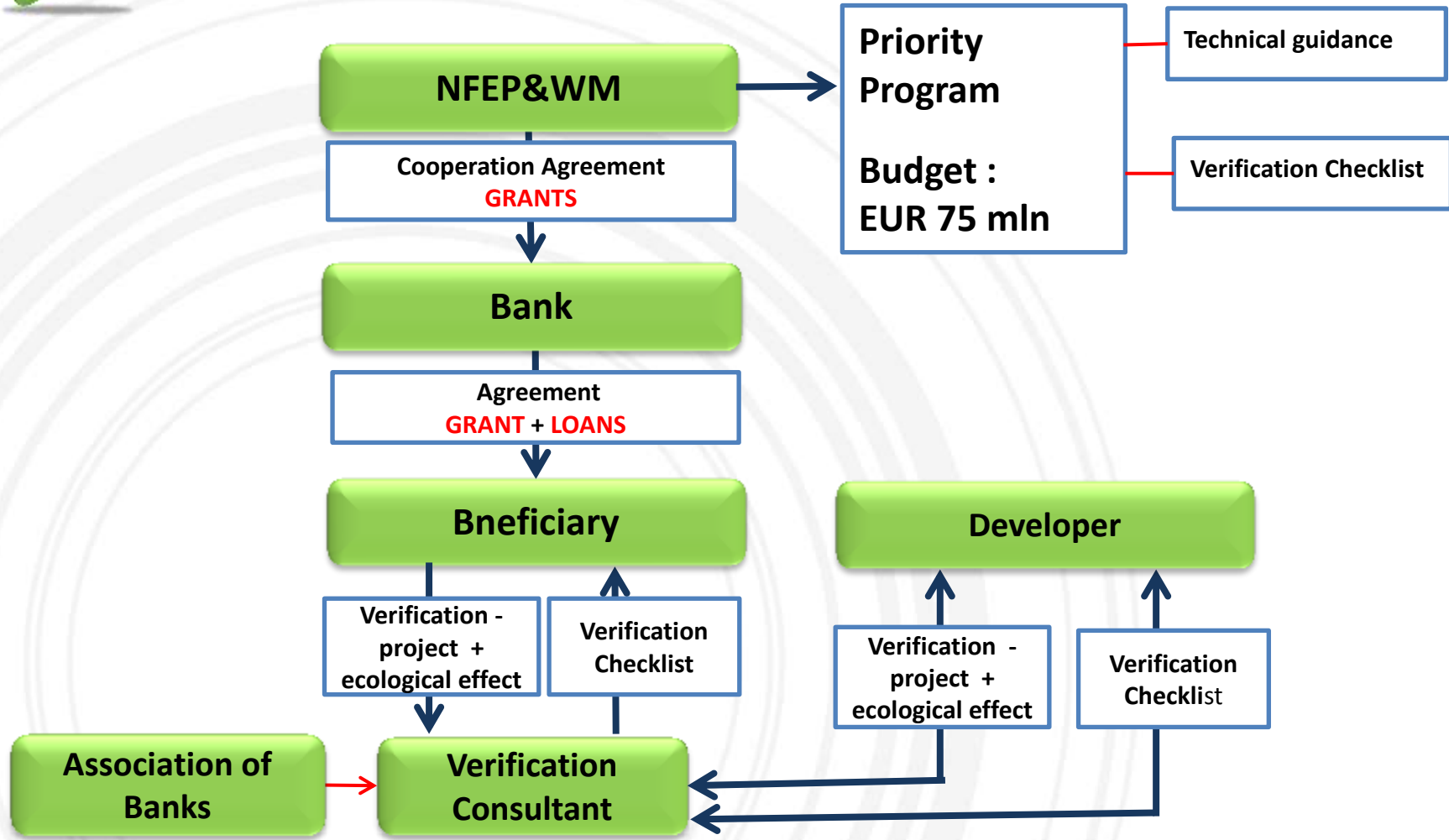
Standard NF40
EUco ≤
40 kWh/year

EUR 2 700
grant for partial
repayment of
the capital of
loan for
beneficiary with
successfully
verified project
and ecological
effect

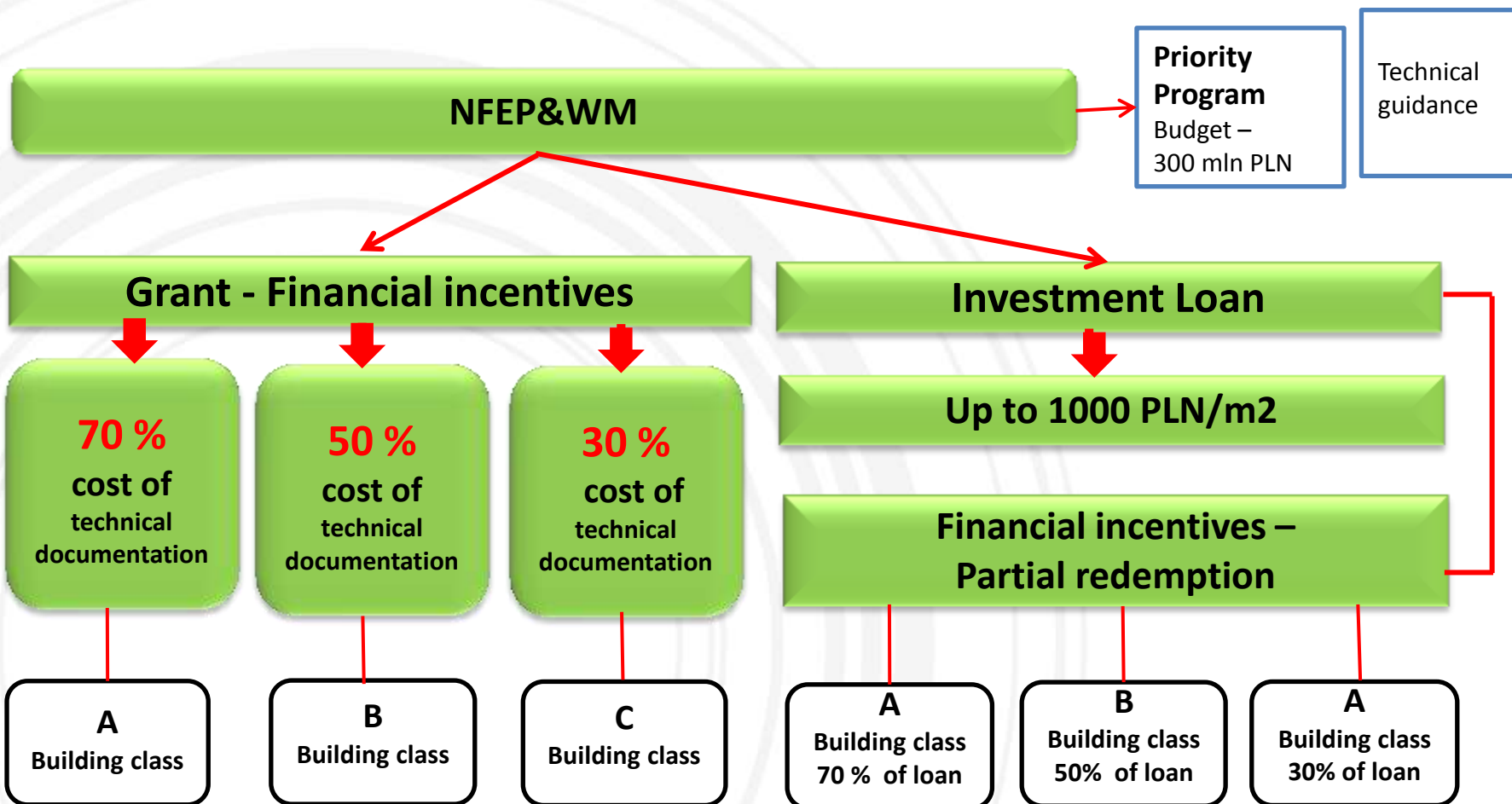
Standard NF15
EUco ≤
15 kWh/year

EUR 3 900
grant for partial
repayment of
the capital of
loan for
beneficiary with
successfully
verified project
and ecological
effect

Energy efficient houses – institutional framework



Energy efficient public building



Energy efficient public building



Reduction in
the demand for
usable energy
(Eu)
in relation to the
reference building
condition

Reduction in
the demand for
primary energy
(Ep)
in relation to the
reference building
condition

Building class
A

60 %

20 %

Building class
B

45 %

15 %

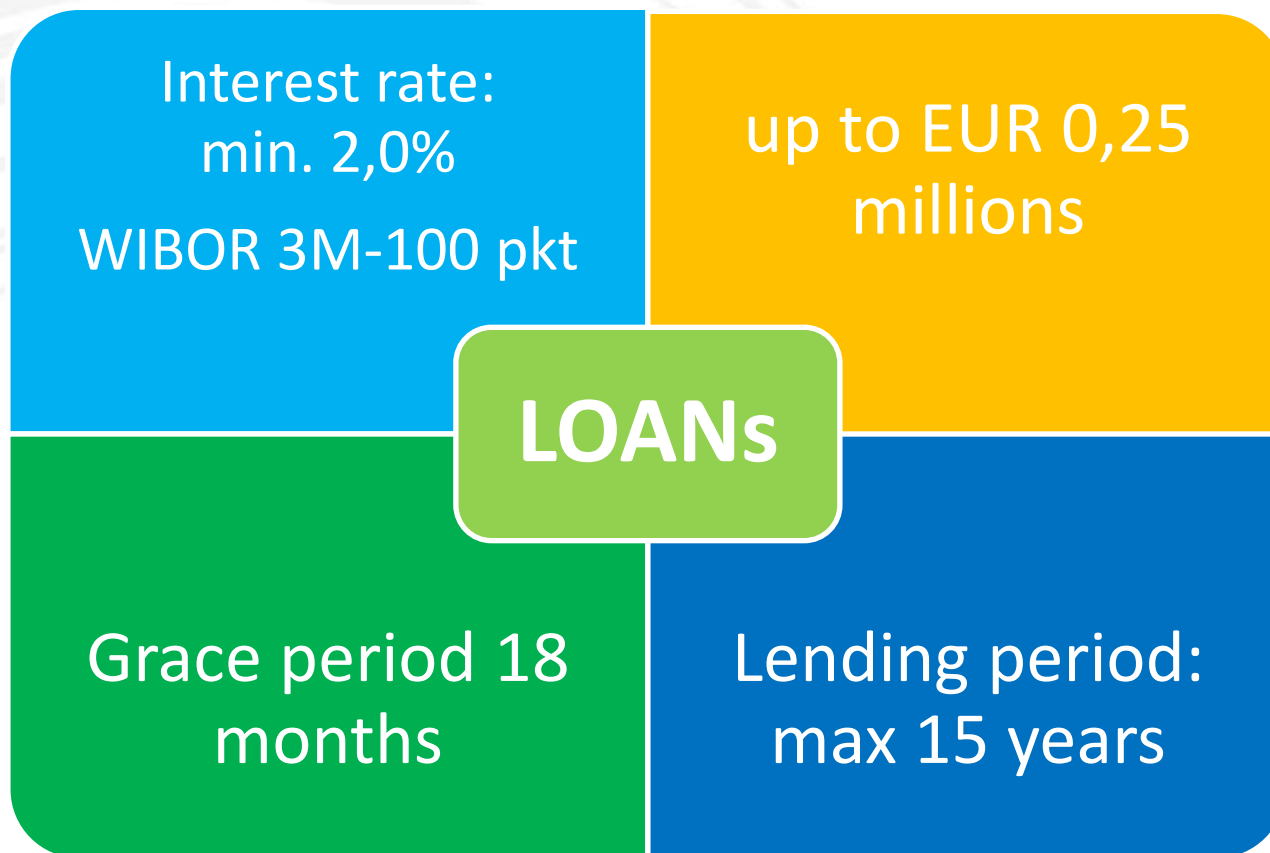
Building class
C

30 %

10 %



Energy efficient public building





PROSUMER

- Type of project : small and micro installation in new or old building, produce heat and electricity for own needs and sale of surplus
- Beneficiary: municipality, individuals, community housing, housing associations
- Scope of the programme:
 - increased energy production - 360 000 MWh / year
 - reduction of CO2 emissions - 165 000 Mg / year

PROSUMER – financial incentive

- Budget: 150 mln euro: 37 mln euro – grant, 113 mln euro – loan
- Funding up to 100% of eligible costs in the form of a loan and the grant

Grant
20%

biomass boilers,
heat pump
solar panels

Grant
40%

photovoltaics,
wind turbines,
micro-cogeneration



Loan

rest of cost up to 100%

interest rate : 1%

maturity : 15
years

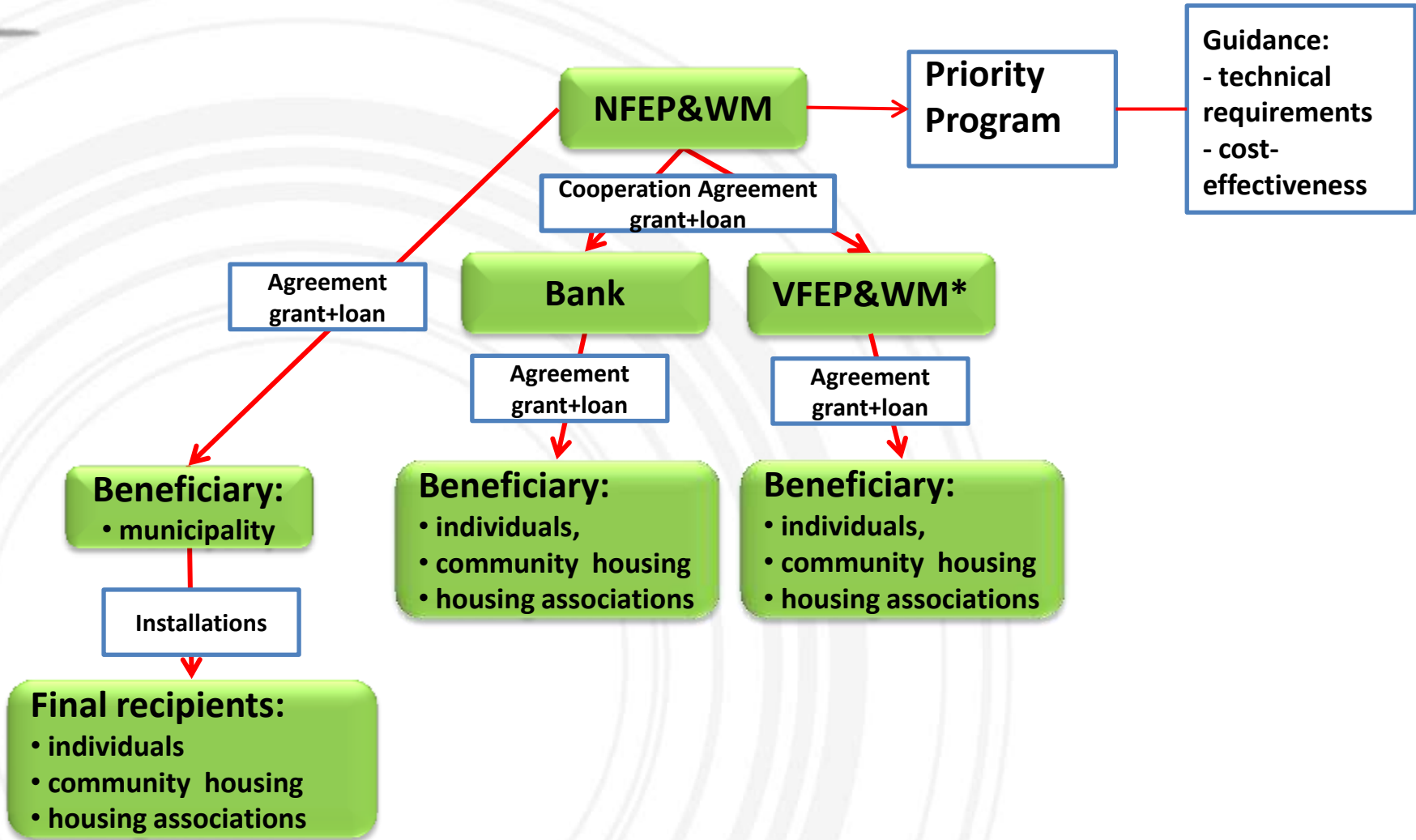
grace period : 6
month

Investment: 24
month

quarterly repayment

- From 2016 r. – grant 15% and 30%

PROSUMER – institutional framework



* Voivodship Fund for Environmental Protection and Water

Energy-efficient lighting systems



- Street lightning systems modernization
- Intelligent control & management systems



Grants up to 45%



Loans up to 55%



Budget:

Grants – EUR 39 mln (GIS)

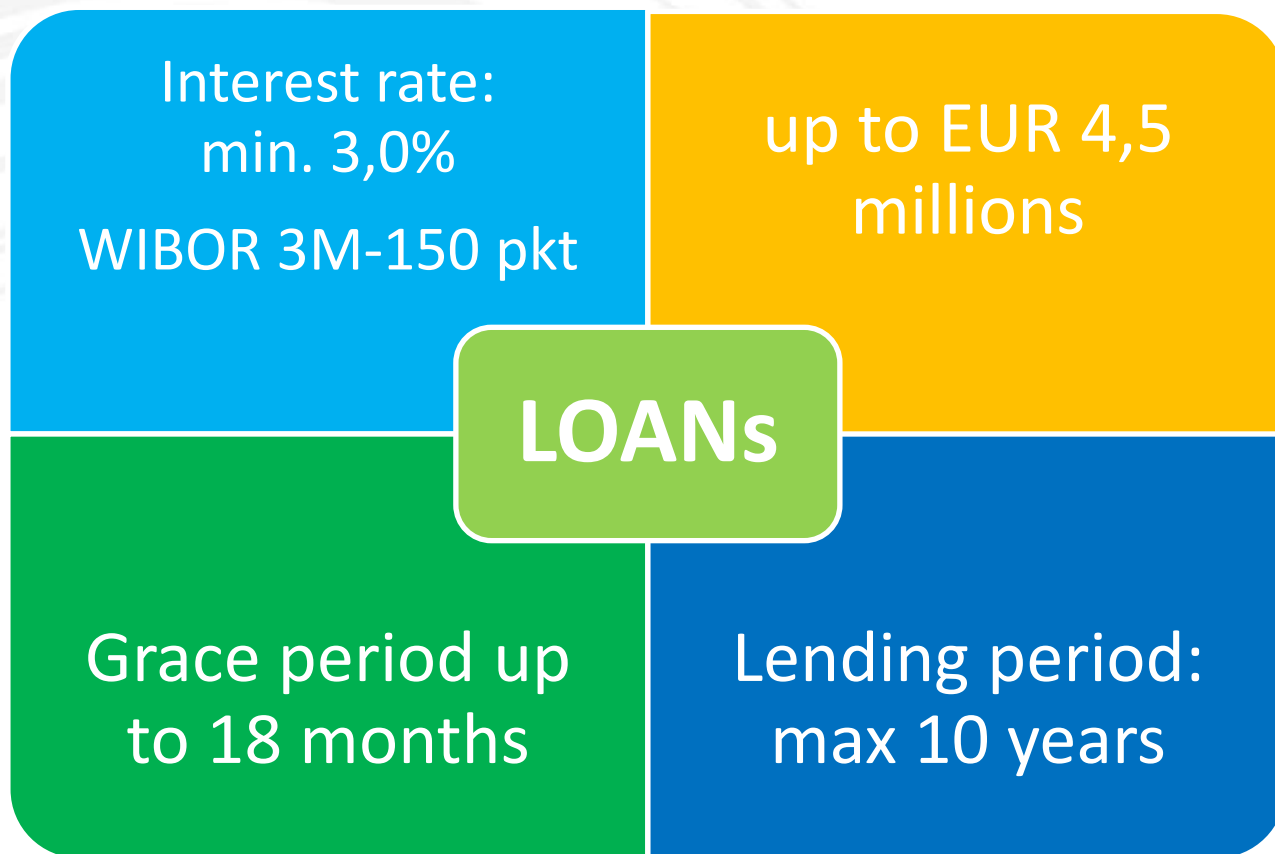
Loans – EUR 47 mln (NFEP)

Condition:

40% reduction of CO2 emission



Energy-efficient lighting systems





Low-emission public transport

Budget: EUR 20 MM

Obligatory measures:

- Purchase of CNG buses
- Driver training

Additional measures:

- Infrastructure (e.g. fuel stations, P&R Parkings)
- implementation of urban transport management systems
- implementation of urban bike system



**Grants
up to 100%**



Goal: CO₂ emission reduction & mitigation through the lowering of energy & fuel consumption in public transport.

Thank you for your attention

Maria Urbowicz
m.urbowicz@nfosigw.gov.pl

www.nfosigw.gov.pl



www.nfosigw.gov.pl

