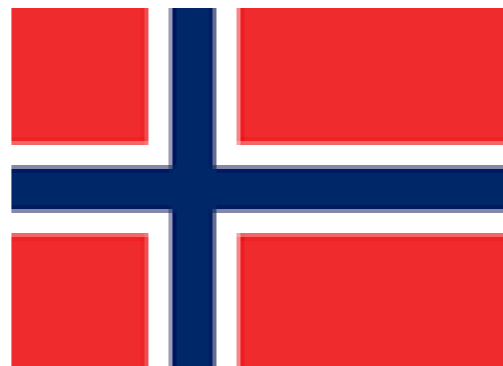


# PROJECT INTRO

## ENERGY SAVING LIGHTHOUSE CITIES IN THE NPA REGION - E-LIGHTHOUSE



**elighthouse.eu**  
TOWARDS ENERGY EFFICIENT COMMUNITIES





Northern Periphery and  
Arctic Programme

2014-2020



EUROPEAN UNION

Investing in your future  
European Regional Development Fund



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TOWARDS ENERGY EFFICIENT COMMUNITIES

Cork, Ireland – June 12, 2015





Northern Periphery and  
Arctic Programme

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TOWARDS ENERGY EFFICIENT COMMUNITIES

Introduction to e-Lighthouse –project by  
showing the project video at elighthouse.eu

2017 05 09 elighthouse





Northern Periphery and Arctic Programme  
2014-2020



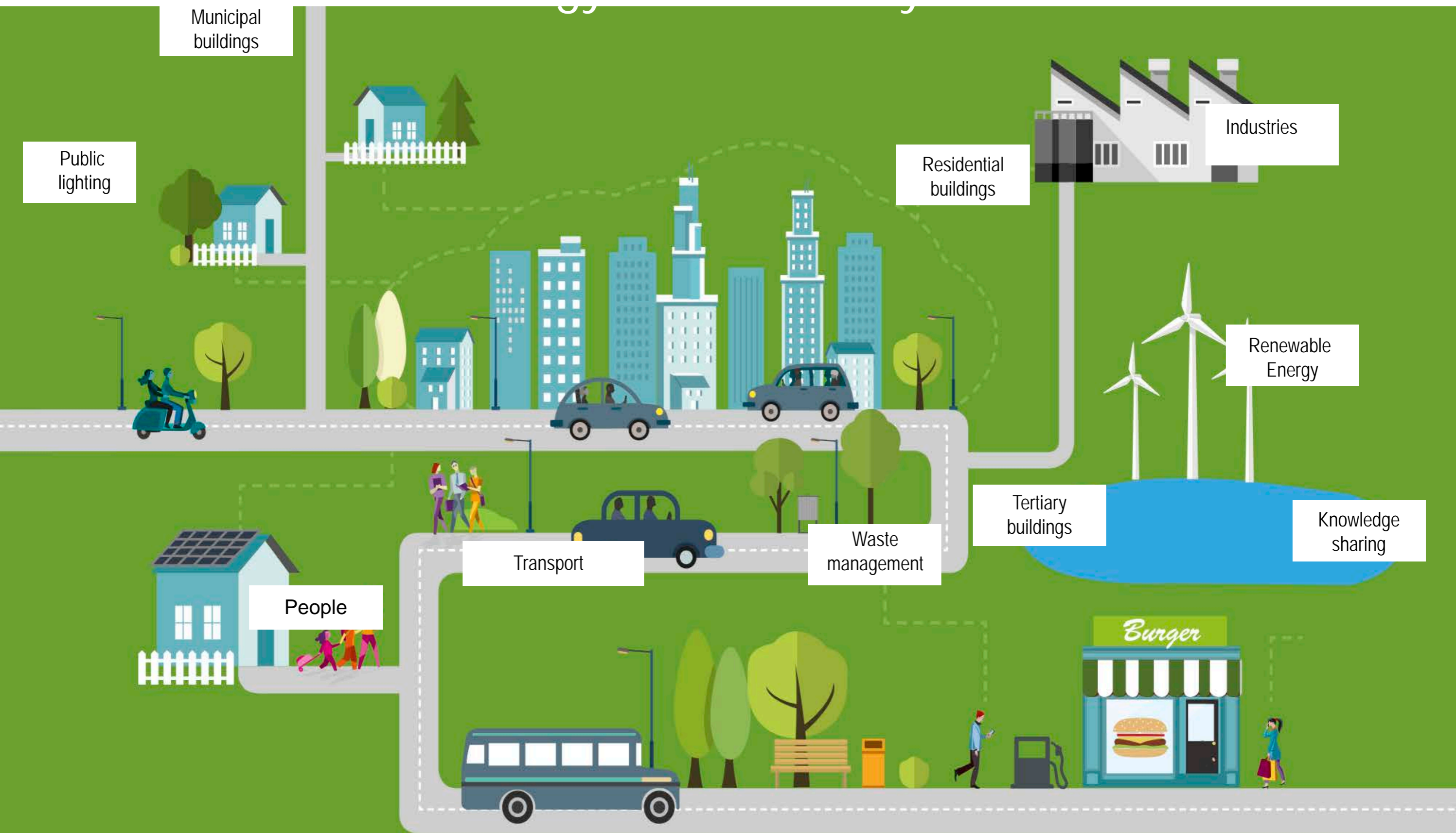
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# e-Lighthouse Allocation of workpackages

**WP M**  
Project Management

**WP C**  
Communication activities

Baseline

**WP T1**  
Energy saving in **municipal buildings** and **lighting**

**WP T2**  
Energy efficiency advice and energy saving for **domestic renovation** and **new buildings**

**WP T3**  
Improved **waste** utilization: Waste for energy and reuse

**WP T4**  
Evaluation, validation of transnational practises

WP	WP title	WP leader	Involved
WP M	Management	Oulu University of Applied Sciences	
WP C	Communication, dissemination	Cork Energy Forum	all
WP T1	Energy saving in municipal buildings and lighting	Cork County Council	City of Oulu, City of Umeå, Bodö, Scotland, Greenland
WP T2	Energy efficiency advice and energy saving for domestic renovation and new buildings	City of Oulu	all
WP T3	Improved waste utilization: Waste for energy and reuse	Nordland Research Institute	Oulu, Cork County Council, Umeå, Greenland, Bodö
WP T4	Evaluation, validation	University of Umeå	all



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# e-Lighthouse Expected results

**WP M**  
Project Management

**WP C**  
Communication activities

Baseline

**WP T1**  
Energy saving in **municipal buildings** and **lighting**

**WP T2**  
Energy efficiency advice and energy saving for **domestic renovation** and **new buildings**

**WP T3**  
Improved **waste** utilization:  
Waste for energy and reuse

**WP T4**  
Evaluation, validation of transnational practises

WP	WP title	Results	status after 3 years
WP M	Management	Fluent, efficient project, without problems	<b>OK !</b>
WP C	Communication, dissemination	15-20 seminars, workshops in NPA region 600,000 inhabitants reached (awareness raising)	<b>OK, N-EEC ! Appr. 350,000</b>
WP T1	Energy saving in municipal buildings and lighting	<u>250 public buildings retrofitted</u> (5% less energy, 3% more renewables), 40 deep renovation	<b>240 now</b>
WP T2	Energy efficiency advice and energy saving for domestic renovation and new buildings	<u>2500 houses retrofitted</u> (25% better energy efficiency) <u>2000 new houses</u> with better energy qualification (10%)	<b>2420 now 2268 (113%) All combined 104% !</b>
WP T3	Improved waste utilization: Waste for energy and reuse	Reduce energy use by 15% in waste management 20% less CO2	<b>OK</b>
WP T4	Evaluation, validation	11 smart solutions piloted	<b>OK</b>

# A list of e-Lighthouse Smart Solutions for public buildings and domestic houses

## Renewable Energy

Cork County Council hall campus case study  
Sustainable Energy Communities (SEC) concept  
Enhancing gravity ventilation for old buildings  
Geothermal energy

Cork County Council  
NCE Insulation  
City of Oulu  
Umeå Kommun



## Energy Management

Proactive quality management in Permit Process of Building Supervision	City of Oulu
Operation Performance against Design	The Highland Council
Smart Energy monitoring to influence behavior	NCE Insulation
Energy Efficiency organizational management ISO 50001	Cork County Council
Energy visualization software for public buildings	Cork County Council
Energy visualization to reduce energy in public kitchens	Umeå Kommun





# Models/products to reuse waste as energy

## Waste

Waste to energy

Waste to gasification

Incineration – municipal waste to energy generation

Gas purification for biogas, used as fuel for transport

Oivapiste collection point for households

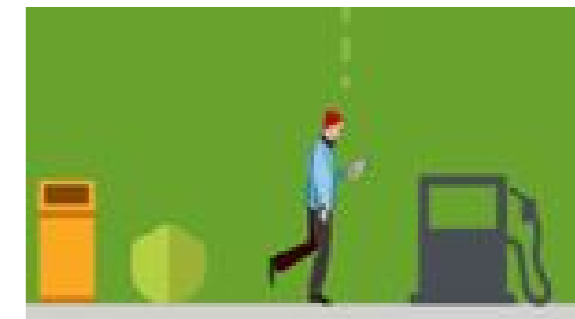
Bodö Kommun, NRI

Bodö Kommun, NRI

City of Oulu, Umeå

City of Oulu

City of Oulu



## WP T4 smart solution

Energy signature analysis for assisting energy management in public buildings

University of Umeå & Umeå Kommun

