

Integrated solutionS for ambitiOus  
energy refurbishment of priVATE housing



**INNOVATE Coordinator: Energy Cities**

**Aradippou – Cyprus One-Stop-Shop**



**energycities**

**A Proud Member of Energy Cities**



**INNOVATE Final Event**  
**21 September 2020**

**Presentation by:**  
**Dr. Panayiotis Michael**  
**Aradippou Municipality, EU Affairs Office Advisor**

**Contact:**  
**Panayiotis.Michael@DataCentersCyprus.com**

# INNOVATE : Who we are, our Consortium

## Project coordinator : Energy Cities

**Vesta Conseil et Finance (FR), Experienced Partner, pls. refer also to JRC report**

**Aradippou Municipality (CY), Learning Partner**

**Brussels Environment (BE), Experienced Partner**

**AGENEX (ES), Learning Partner**

**Frederikshavn Municipality (DK), Experienced Partner**

**Heerlen Municipality (NL), Learning Partner**

**KAW (NL), Experienced Partner, pls refer also to JRC report for Reimarkt project**

**Linnaeus University (SE), Learning Partner**

**Litoměřice Municipality (CZ), Learning Partner**

**Mantova Municipality (IT), Learning Partner**

**Parity Projects (UK), Experienced Partner, pls refer also to JRC report**

**Riga Energy Agency (LV), Experienced Partner**

# Innovate: Who we are, what we aim at, how we'll achieve it

- **INNOVATE** brings together a strong consortium of 13 partners coming from 11 EU Member States (FR, NL, DK, BE, LV, CZ, CY, SE, IT, ES and UK). The consortium is coordinated by Energy Cities, a European network of more than 1.000 local authorities in energy transition.
- We aim at overcoming market barriers to **deep energy-efficient retrofits of private housing stock** and launching ambitious energy retrofit pilot programmes aiming at min. 50% energy savings in 11 target territories.
- This will be done by developing and rolling out **integrated energy efficiency (EE) service packages**
- **Integrated energy efficiency service packages** to be offered through **One-Stop-Shops**





# Presenting the Country – Island of Cyprus at the Southeastern corner of Europe



## Cyprus



**Capital:** Nicosia

**Geographical size:** 9 251 km<sup>2</sup>

**Population:** 847 008 (2015)

**Population as % of total EU population:** 0.2 % (2015)

**Gross domestic product (GDP):** € 17.421 billion (2015)

**Official EU language(s):** Greek



*Map sources:*

1. <http://europa.eu/about-eu/countries/>
2. <http://eservices.dls.moi.gov.cy/#/national/geoportalmviewer>



Funded by the Horizon 2020  
Framework Programme of the  
European Union

# Aradippou Smart Industrial City strategy

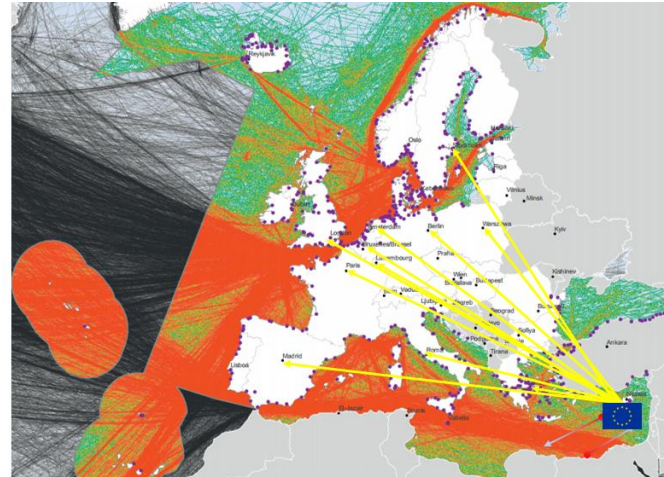
## Thematic axes of high priority for Economic Development

### City in Facts and figures

Approx. 10 Km from  
Larnaca International Airport  
and 5 Km from Larnaca port

First EU airport-industrial-zone met  
by ships crossing the Suez

Area: 173 sq. Km  
(second largest Municipality in area in Cyprus)  
Population: 19,500  
Host of the Aradippou Industrial Zones



**SUSTAINABLE ENERGY – SMART GRID**

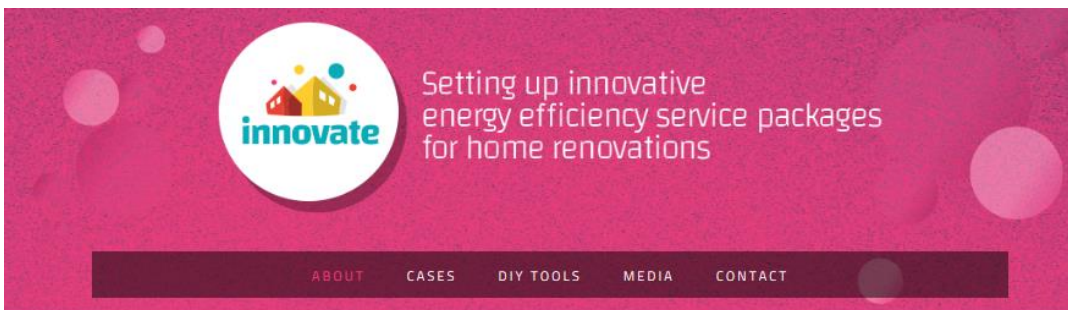
**FREIGHT AND SMART LOGISTICS OPERATIONS**

**REAL ESTATE-BUSINESS AND CONFERENCE CENTERS**





# Learning partners in the Horizon 2020 INNOVATE project : One-Stop-Shops for deep energy efficiency investments



## IN A NUTSHELL

INNOVATE – We are developing attractive energy retrofit packages for homeowners



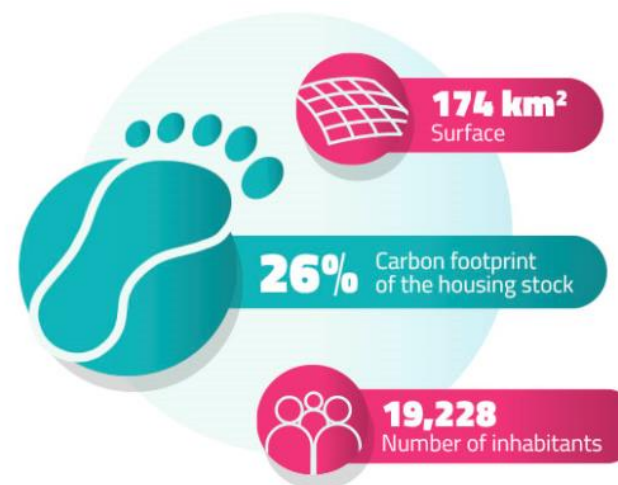
### THE ISSUE

For homeowners, the **energy refurbishment** process is unclear. For some, it is not obvious why saving energy is important. They ignore the multiple benefits of energy refurbishments. Positive return on investments, increased property value, thermal comfort... Others are aware, but do not know what measures they can take, how to finance them, who to contact and how to start. Moreover, renovation costs compete with other household investment priorities such as buying a new car or remodelling their kitchen. Often the energy renovation process stops at a planning stage.

### OUR SOLUTION

INNOVATE partners want to motivate homeowners to carry out deep energy retrofits of private residential buildings – single family houses and condominiums. In order to facilitate the process, they will develop and roll out attractive **energy retrofit packages**, ideally offered in one location – a **one-stop-shop**.

The service packages will include:



## Key business partners

- Cooperative Central Bank;
- Larnaka Chamber of Commerce and Industry;
- Electricity Authority of Cyprus.

## Website links

- Aradippou as a smart city
- Aradippou Municipality

## Contact

Dr. Panayiotis Michael  
EU Affairs Office Aradippou Municipality

# Value Proposition of Aradippou OSS

## The OSS will be providing to Citizens:

- Information and guidance on how to benefit from Energy Efficiency investments.
- Connection to Banks and Constructors through the Chamber of Commerce, monitoring the quality of the offered services through the Open Door policy of the Mayor and the Municipality to Citizens.
- Scientific Methods measuring and modelling energy performance in the long run.
- The OSS will help Citizens customize an NZEB Roadmap issuing a Building Renovation Passport for their project, plan for Municipal Grant Schemes and inform about Grant Schemes available through the Ministry of Energy, Commerce, Industry and Tourism.
- Development of a Municipal Registry
- Through the OSS experience and by following the NZEB Roadmap, homeowners can financially benefit from:
  - Increased energy savings
  - Loan interest subsidies equivalent to a 0% interest rate (or up-to)

## Renovating your home?

Save Energy and benefit from the  
Municipal Grants of Aradippou Municipality



Photovoltaics + Energy Efficiency  
actions eligible for Municipal Grants

Photovoltaics + One or more from the following actions:

- ☐ Thermal insulation of floor, roof and walls
- ☐ Sun shades
- ☐ Ventilation systems
- ☐ Change or upgrade of oil-boilers to electric boilers
- ☐ More efficient air conditioning Systems

Grant up to €1500 depending on Energy Savings / Clean Energy produced  
+ up to €1500 for interest reduction in case a Bank loan is undertaken

# Draft advertisement for Municipal Newspaper

Transitioning Generic Renovation  
to Energy Renovation

Promoting Health, Comfort  
and family Happiness  
(medical insurance industry)

A list of options from the JRC  
report for Cyprus  
“Long-term strategy for mobilizing investments  
for renovating Cyprus national building stock”

Cash incentives for Citizens linked  
to CO<sub>2</sub> tonnes reduced, NZEB Roadmap  
and investment mobilization

INNOVATE project transforms  
Town Hall to an One-Stop-Shop





ΔΗΜΟΣ  
ΑΡΑΔΙΠΠΟΥ

# ΑΝΑΚΟΙΝΩΣΗ

## ΔΗΜΙΟΥΡΓΙΑ ΜΗΤΡΩΟΥ ΕΝΕΡΓΕΙΑΚΩΝ ΑΝΑΚΑΙΝΙΣΕΩΝ ΚΑΤΟΙΚΙΩΝ ΑΡΑΔΙΠΠΟΥ ΚΑΙ ΤΕΧΝΙΚΗ ΒΟΗΘΕΙΑ ΠΡΟΣ ΤΟΥΣ ΠΟΛΙΤΕΣ ΜΕ ΤΗ ΜΟΡΦΗ ΔΗΜΟΤΙΚΗΣ ΧΟΡΗΓΙΑΣ ΜΕΧΡΙ 7%

Ο Δήμος Αραδίππου στα πλαίσια του Ευρωπαϊκού Προγράμματος INNOVATE, One Stop Shop δημιουργεί Μητρώο Ενεργειακών Ανακαινίσεων και Φωτοβολταϊκών κατοικιών, στο οποίο μελλοντικά έργα μπορούν να καταγραφούν και να λάβουν δημοτική χορηγία μέχρι 7% επί της συνολικής αξίας του κάθε έργου με επιπλέον 1% σε περίπτωση λήψης δανειοδότησης/ χρήσης πιστωτικής κάρτας (δημοτική χορηγία μείωσης τόκου για ενεργειακές ανακαινίσεις)

Περισσότερες πληροφορίες μπορείτε να λάβετε από Λειτουργό του Δημαρχείου,  
στα τηλέφωνα: **24 811 091, 24 811 093**



Το έργο αποτελεί πιλοτική εφαρμογή, ευρωπαϊκού προγράμματος για περιορισμένο αριθμό κατοικιών.

Θα κρατηθούν σειρές προτεραιότητας σε τρεις διαφορετικές κατηγορίες:

- Μικρά φωτοβολταϊκά και ανακαινίσεις μέχρι 5.000 ευρώ,
- Μεσαία φωτοβολταϊκά και ανακαινίσεις από 5.000 μέχρι 15.000 ευρώ
- Μεγάλα φωτοβολταϊκά και ανακαινίσεις για ποσό μεγαλύτερο των 15.000 ευρώ.

### Σημειώσεις:

Ο πλήρης οδηγός επιλογών διατίθεται από το Δημαρχείο. Η χορηγία καλύπτει μέρος των εξόδων Μελετών του έργου περιλαμβανομένων Ενεργειακών Μελετών που θα πιστοποιούν την εξοικονόμηση ενέργειας και την παραγόμενη καθαρή ενέργεια από τις εγκαταστάσεις.

Οι εγκαταστάσεις Δεν θα πρέπει να έχουν λάβει άλλη χορηγία από το σχέδιο Παροχής Χορηγιών του Υπουργείου Ενέργειας, Εμπορίου και Βιομηχανίας

### Φωτοβολταϊκό + Ενεργειακή Αποδοτικότητα μία ή περισσότερες από τις ανακαινίσεις που επιχορηγούνται

- Περαιάνες
- Κινητά και σταθερά σκίαστρα
- Συστήματα αερισμού και δροσισμού
- Αλλαγή ή αναβάθμιση ηλιακών θερμωσίφωνων
- Αποδοτικότερα συστήματα Air Condition
- Αλλαγή ή αναβάθμιση boiler πετρελαίου σε ηλεκτρικό
- Θερμομονώσεις Οροφής, Τοίχων και Δαπέδου
- Ενεργειακά αποδοτικότερος Φωτισμός
- Ενεργειακά αποδοτικότερες συσκευές (π.χ. πλυντήριο, ψυγείο, στεγνωτήριο)



INNOVATE has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101017112.



innovate

<http://www.financingbuildingrenovation.eu/>



Funded by the Horizon 2020 Framework Programme of the European Union

# Aradippou Cyprus Model: Citizen's experience at the OSS

OSS 

**Associated to the OSS  
Constructors, Banks and  
Energy Experts**

## Step 1 : Initial Enquiry and Overview

Intro to the scheme. Grant information

Linkage of Municipal Grant (interest subsidy) to Energy Efficiency works

Explanation of the NZEB Roadmap and the Building Renovation Passport

Connection to Associated Banks and Constructors

Connection to Energy Experts

Free of charge  
advice at  
« initial enquiry  
stage »

## Step 2 : Development of the preliminary Energy Efficiency refurbishment package

Development of the Construction plan by the Constructor

Linkage of the Energy Efficiency works to the NZEB Roadmap by the Energy Expert

Financing plan from the Bank

Market-based  
services at  
« support  
stage »

## Step 3 : Grant structuring and Financing

Joint team from Constructor, Bank and OSS staff discuss the techno-economic proposal at the OSS and its linkage to NZEB Roadmap

Previous step is revisited until OSS is satisfied and Grant is secured until successful completion of project

Free of charge  
Municipal  
Services at  
« support  
stage »

**Project site**

## Step 4 : Financing and Works Completion

Financing is issued

Renovation works are implemented and completed

# Aradippou Cyprus Model: Citizen's experience at the OSS (cont.)

## Step 5: Successful Completion Audit

OSS audits the successful completion of works

OSS receives Energy Performance Certificate from the Energy Experts of the project

OSS marks the Energy Efficiency steps performed towards deep energy retrofitting on the NZEB Roadmap and issues a Building Renovation Passport

OSS issues Grant payment subsidizing loan interest based on the depth of energy retrofitting achieved

Interest subsidy



## Step 6 : Post-renovation energy monitoring

As part of the NZEB Roadmap and Renovation Passport agreement between the Citizen and the Municipality, the OSS monitors with scientific tools the energy performance of the building for the following years, supporting the Quality Assurance framework of the OSS

Post-renovation energy monitoring



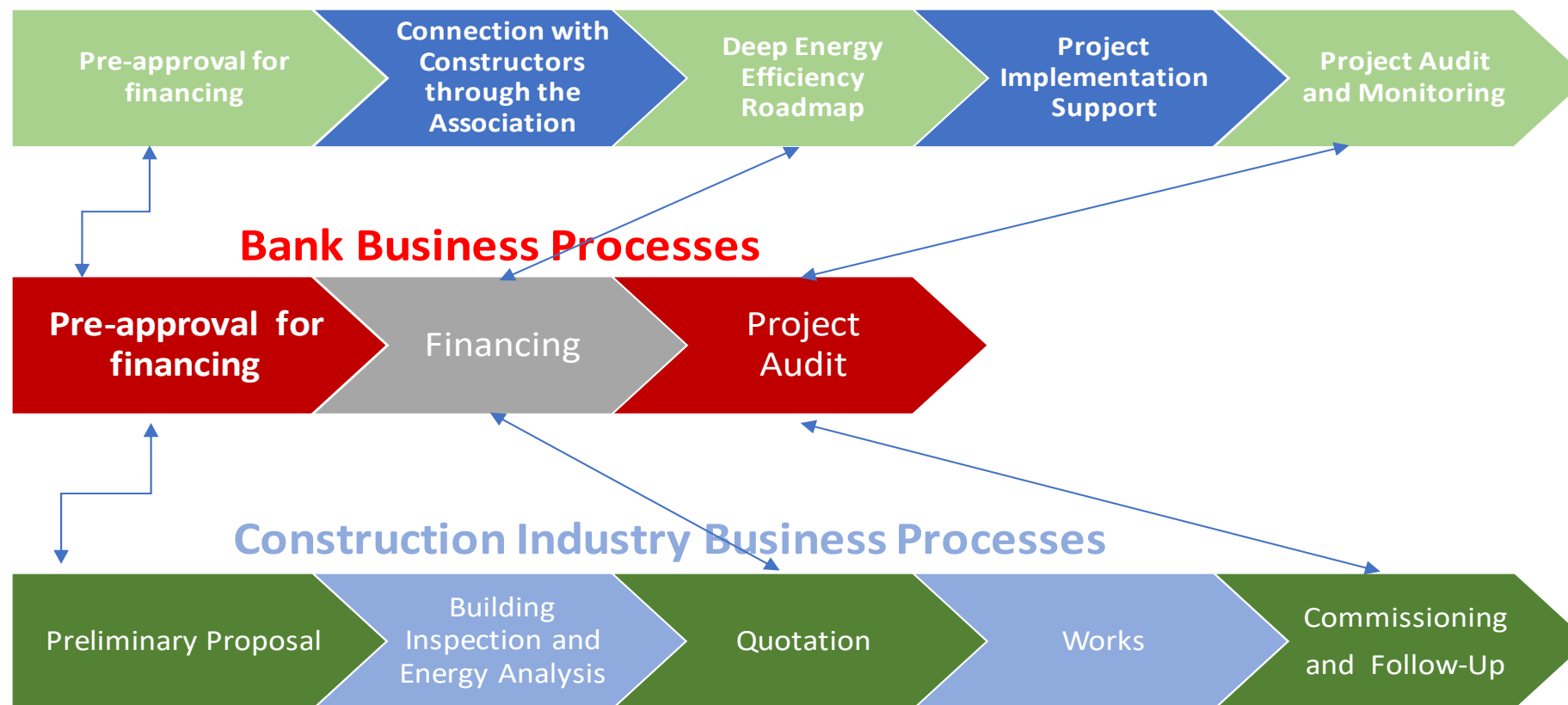
NZEB Roadmap and Renovation Passport

Στόχος χάρτη πορείας: κτίρια με σχεδόν μηδενική κατανάλωση ενέργειας  
Roadmap Aim: Nearly Zero Energy Buildings

Strategic planning: Dr. Panayiotis Michael  
References: INNOVATE internal documentation, 2018



## Aradippou Clean Energy One-Stop-Shop Business Processes



**Aradippou OSS is based on a system of 3 chains of business processes**

*Strategic planning: Dr. Panayiotis Michael*

*References: INNOVATE internal documentation, 2018*

# Aradippou OSS Business Model Canvas

<b>Key Partners</b> <ul style="list-style-type: none"><li>• Municipality Departments</li><li>• Ministry of Energy Commerce, Industry and Tourism of Cyprus</li><li>• Larnaka Chamber of Commerce and Industry</li><li>• Association of Suppliers/Constructors</li><li>• Association of Banks</li><li>• Civil Society Organisations</li></ul>	<b>Key Activities</b> <ul style="list-style-type: none"><li>• Municipal Subsidies</li><li>• NZEB Roadmap assistance</li><li>• Consultation</li></ul> <b>Key Resources</b> <ul style="list-style-type: none"><li>• Trusted environment of the Municipality</li><li>• Excellent relationships with Associations of Constructors and Banks through the Larnaka Chamber of Commerce and Industry</li></ul>	<b>Value Proposition</b> <ul style="list-style-type: none"><li>• Implementation of NZEB Roadmap with a Building Renovation Passport</li><li>• Increased Energy Savings</li><li>• Quality Monitoring</li><li>• Interest rate subsidies towards a 0% interest rate</li></ul>	<b>Customer Relationships</b> <ul style="list-style-type: none"><li>• One-by-one consultation on the implementation of the Municipality’s services</li></ul> <b>Channels</b> <ul style="list-style-type: none"><li>• Direct Citizen visits to the OSS at the Town Hall – at orientation stage</li><li>• Citizen Visits to the partners’ premises (Constructors, Banks) – at accompaniment stage</li></ul>	<b>Customer Segment</b> (characteristics of a single segment) <ul style="list-style-type: none"><li>• Middle to Higher Income Households</li><li>• Ready to invest in Household Maintenance</li><li>• Willing to undertake a loan and have a banker</li><li>• Can understand the economic and environmental benefits of investing in Energy Efficiency</li><li>• Still request grants if they exist</li><li>• Somehow negotiate interest rates</li></ul>
<b>Cost Structure</b> <ul style="list-style-type: none"><li>• Usage of Municipality’s infrastructure</li><li>• OSS to be run by the European Affairs Office team of the Municipality</li></ul>			<b>Revenue Streams</b> <ul style="list-style-type: none"><li>• Free service for Citizens, financed by the Municipality at start-up phase</li><li>• Fees from Innovation activities (e.g. financial tools innovation) when at large scale phase</li></ul>	

Alexander Osterwalder, Yves Pigneur, Alan Smith, and 470 practitioners from 45 countries. 2010  
 Referenced by: Boza-Kiss Benigna, Bertoldi Paolo, *One-stop-shops for energy renovations of buildings*, European Commission, Ispra, 2018, JRC113301

# Securing Political Support:

The positive impact of the INNOVATE meeting in Aradippou



**INNOVATE partners welcomed by the Mayor and the Municipal Council at the Aradippou Town Hall and the Conference Venue**

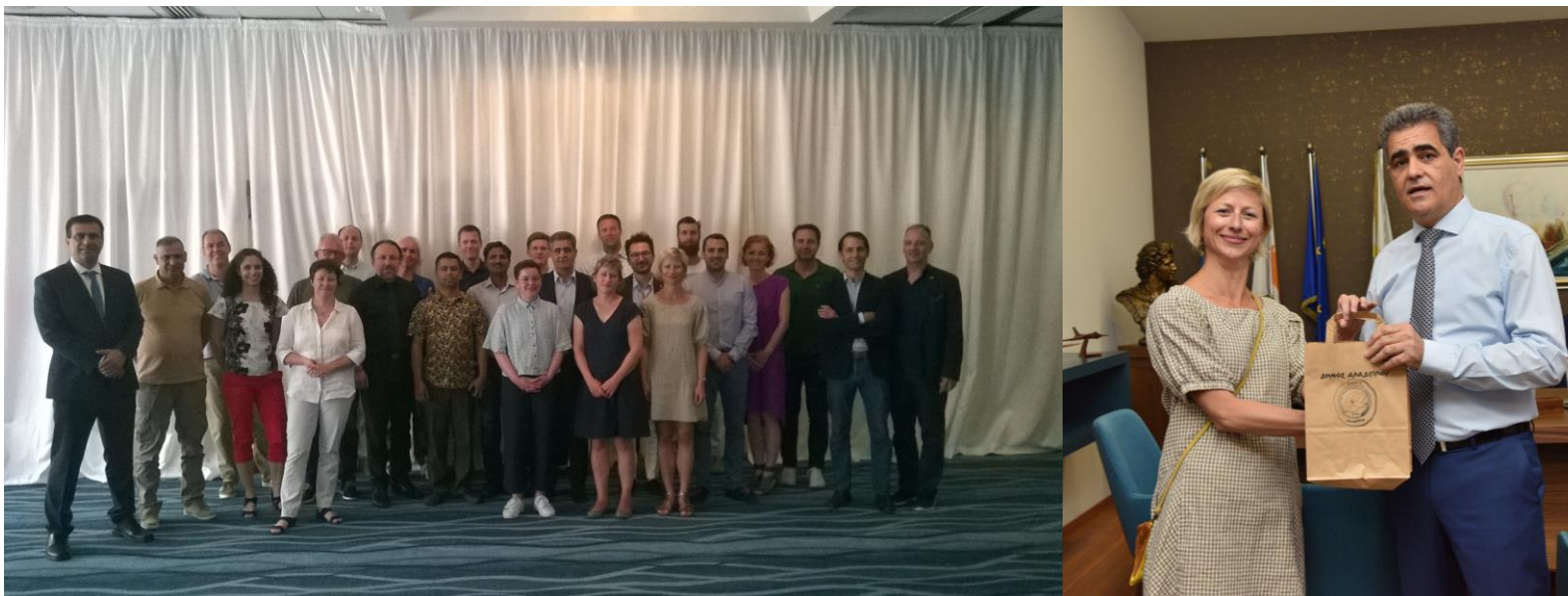


**Ms Jana Cicmanova of Energy Cities presents INNOVATE to the Minister of Foreign Affairs of Cyprus Mr. Nicos Christodoulides in the presence of Aradippou Mayor Mr. Evangelos Evangelides and the Mayor of Pylos-Nestor Mr. Dimitris Kafantaris, President 'Sustainable City' Network.**

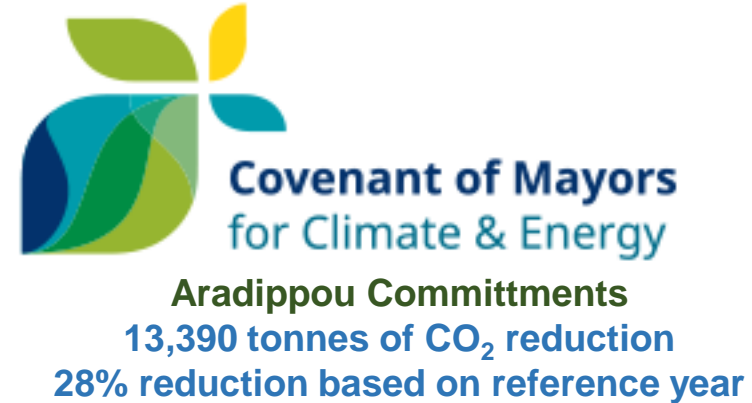


# Honoring INNOVATE efforts in Aradippou, Cyprus

## 3<sup>rd</sup> Steering Committee meeting, May 2018



# Securing Political Support



***June 22, Interview of Mayor of Aradippou to media***

**Question: What are the goals of the INNOVATE programme which you have recently hosted in Aradippou?**

INNOVATE project will implement an innovative idea where the Municipalities of the European partners of the project, Aradippou being one of them, will establish One-Stop-Shop offices for Clean Energy (and Energy Efficiency).

Available online at:

<http://www.philenews.com/koinonia/anthropoi/article/544173/pente-lepta-me-ton-evangelos-evangelidi>



# References to Aradippou from major European Cities

## Smart Cities Vienna, Munich, Lyon

<https://www.smarter-together.eu/news/successful-conclusion-1st-innovate-smarter-together-workshop-focusing-one-stop-shops-deep>



## Successful Conclusion of the 1st INNOVATE – Smarter Together Workshop focusing on 'One-Stop-Shops for Deep Energy Retrofits' and 'Holistic Refurbishment in Smart Cities'

05 June 2018

INNOVATE and Smarter Together project delegates successfully concluded their joint Workshop in Aradippou, Larnaka District, Cyprus. The Workshop was under the auspices of the Mayor of Aradippou Mr. Evangelos Evangelides.

The Smarter Together Club of Cities – Horizon 2020 project ( <https://www.smarter-together.eu/> ) of the European lighthouse cities Vienna, Munich and Lyon, the follower cities Santiago de Compostela, Sofia and Venice and the observer cities Kiev and Yokohama, was represented in the Workshop by the City of Munich, by Ms Hana Riemer and Ms Verena Stoppel and by the City of Vienna, by Dr. Bojan-Ilija Schnabl.

## Smart City Vienna



arter Together und INNOVATE in Aradippou (Zypern)

### agung zu Modellen der Wohnhaussanierung

(Wiener Modell der integrierten „Sanften Stadterneuerung“; Ein europäisches Zukunftsmodell)

130. Mai bis 1. Juni 2018 fand auf Initiative von „Energy Cities“ und der syrischen Gemeinde Aradippou in der Hafenstadt Larnaka die erste gemeinsame Konferenz der EU-Projekte Smarter Together und INNOVATE statt.

Fokus standen Lösungsmodelle für eine verstärkte ökologische Sanierung von Wohnhäusern.

Beispiele die „Sanfte Stadterneuerung“, die in Wien erfolgreich seit mehr als 40 Jahren eingesetzt wird, durchaus interessante Lösungsansätze für jene Städte und Länder, die vornehmlich einen privaten (Mehrfamilien-)Wohnbestand haben.



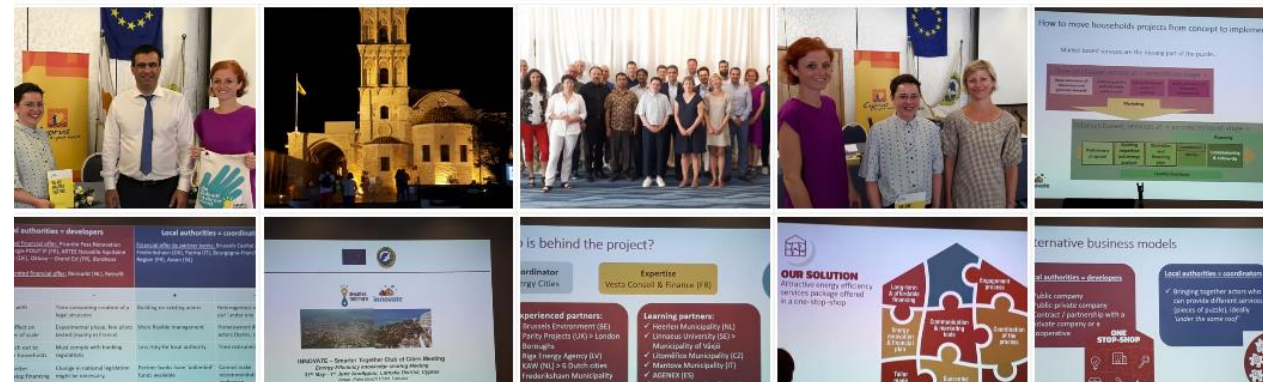
Teilnehmende der gemeinsamen Tagung INNOVATE – Smarter Together in Aradippou, Larnaka District

### kologische Wohnhaussanierung: Eine Notwendigkeit zur Erreichung der Klimaziele

in für die Europäische Kommission ist klar, dass die ökologische Sanierung von Mehrfamilienwohnhäusern für die Erreichung der Pariser und Bonner Klimaziele einen wichtigen Beitrag leisten und leisten soll. Innovative Ansätze werden im Rahmen des Forschungsprogramms **Horizon 2020** speziell gefördert. Zwei Projekte führten dazu in Larnaka einen fruchtbaren Austausch unter Together und INNOVATE.

arter Together verfügt einen breiten Ansatz einer umfassenden Stadterneuerung und wird aktuell in Stimmung umgesetzt. INNOVATE fokussiert auf Geschäftsmodelle zur Sanierung von privaten Wohnhäusern – Einfamilienhäuser ebenso wie Mehrfamilienwohnhäusern und insbesondere WGs (Wohnungsgenossenschaften). Im Rahmen von INNOVATE wird („One-Stop-Shops“ eingerichtet, die ein gebündeltes Service anbieten und damit die Sanierungsrate steigern sollen. Dabei werden Beratungs- und Koordinationsdienstleistungen mit oder ohne Finanzierungsmodell angeboten, d.h. dass die lokalen Einrichtungen (One-stop-Shops) als Dienstleister oder als Koordinatoren auftreten.

### pressionen von der Tagung





## THIS SMALL TOWN MODEL WILL HELP YOU BOOST ENERGY EFFICIENCY ACTIONS IN BUILDINGS!

By Sara Giovannini on 5 November 2018

Located at the outskirts of Larnaca (Cyprus), Aradippou is a small town with a big vision. Thanks to its size, its homogenous building stock and its Mayor's ambitious vision, the city is testing innovative financing solutions in energy efficiency.



The municipality has already set up a soft loan scheme for photovoltaics in collaboration with the Cyprus Cooperative Bank. Through its participation in the Horizon 2020 **INNOVATE** project, Aradippou wants to develop a similar financing scheme for energy efficiency. The city also wants to set up a One-Stop-Shop service with public and commercial partners. This service will guide citizens throughout their energy efficiency renovation process.

### A One-Stop-Shop for energy renovation

Source: <http://www.energy-cities.eu/This-small-town-model-will-help-you-boost-energy-efficiency-actions-in-5259>

### Energy Cities in Europe



**WELCOME TO NEWEST MEMBERS:**  
**Krizevci Croatia | Sustainable City Network (GR)**  
**Greece | CEDEF-Central European Development**  
**Forum (RS) Serbia | Albertville France | Union of**  
**Communities of Armenia (AM) Armenia**

### Latest opinions

- Recommendations for an Effective and Inclusive Clean Energy Transition Sub-Programme within LIFE 2021-2027 - December 2018
- Recommendations for the vote in ENVI Committee on the proposal for a regulation establishing a Programme for the Environment and Climate action (LIFE) - November 2018
- Towards an EU budget that will serve to achieve Europe's climate objectives - October 2018

### Events to come

Concept of Mayor webinars - Adapt codes #1

## Conclusion:

### Local Authorities can be catalysts for the success of One-Stop-Shops

- Quality Assurance, Verification and Incentives to Citizens to accelerate investments in Energy Efficiency through One-Stop-Shops
- Achieved through the development of a Municipal Registry

This is based on:

- Trust of Citizens to Local Authorities
- Covenant of Mayors. Commitment to protect the Environment
- Effort to be on track for Energy Efficiency EU targets of 2020 (20%), 2030 (32.5%)
- Interest on the growth of the local economy on the basis of environmental sustainability





Setting up innovative  
energy efficiency service packages  
for home renovations

## Aradippou – Cyprus One-Stop-Shop



A Proud Member of Energy Cities



# Thank You

Dr. Panayiotis Michael  
EU Affairs Office Advisor

Contact:

[Panayiotis.Michael@DataCentersCyprus.com](mailto:Panayiotis.Michael@DataCentersCyprus.com)

[financingbuildingrenovation.eu](http://financingbuildingrenovation.eu)



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