





# Republika Kosova-Republic of Kosova *Qeveria –Vlada-Government*

Ministria e Ekonomisë dhe Ambientit/ Ministarstvo Ekonomije I Život Sredine /Ministry of Ekonomy and Environment

AGJENCIA KADASTRALE E KOSOVËS/ KATASTARSKA AGECIJA KOSOVA/ KOSOVA CADASTRAL AGENCY

# UNIFIED ADDRESS SYSTEM IN THE REPUBLIC OF KOSOVO





# **Unified Address System Components**

- The project started in December 2010;
- The project is supported by the EU Office in Kosovo and Norway Government;
- Implementing Kosovo Cadastral Agency / Municipalities at local level;
- Pilot Project;
- Legislation framework;
- Capacity building in central (KCA) and local level (UPO);
- ARIS's development;
- Data collection and digitizing into ARIS (national level);
- Address data dissemination;
- Address signalization;
- Use of Address Register;
- Cooperation and beneficiaries of relevant institutions from Address System;





### **Results Achieved**



#### √ Results

- Address Legislation framework
- The electronic and functional State Address Register (ARIS)
- Public Circulation Type Designated and Named
- Address data collected in the field
- Address data digitized and numbered in ARIS
- Official Addresses presented in the State Geoportal
- Capacity building in municipalities
- Road name signalization
- Entrance number signalization
- Roads and address data updating
- Address linking with state registers CRA (Hani I Elezit), Statistics
- ✓ Why is it important for the citizens?
  - For public services
  - Postal services
  - Emergencies
  - Courts etc.



CITIZEN INFORMATION FOR NEW ADDRESS







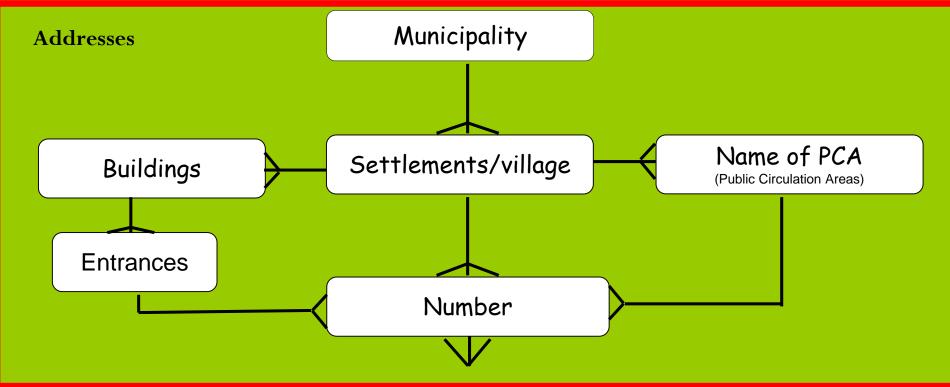
## **Address Elements by Law**

- Municipality name;
- Settlement name;
- Name of Public Circulation Space in which the object has an exit;
- Building number;
- Entrance number;
- Floor number;
- Apartment number;
- Postal code.









"The number of address" is the numeric identifier of an addressable object - houses, collective building, shop, ground, along a PCA.



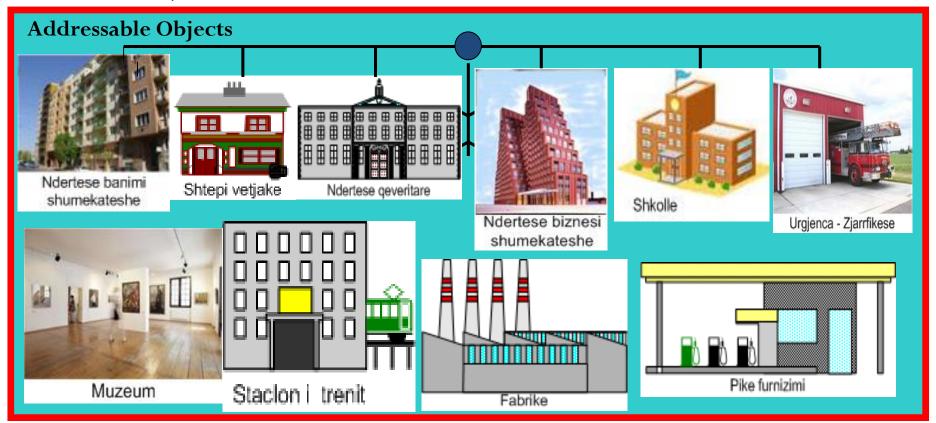


# Who gets the address?

#### "Addressable objects"

All addressable objects given address.

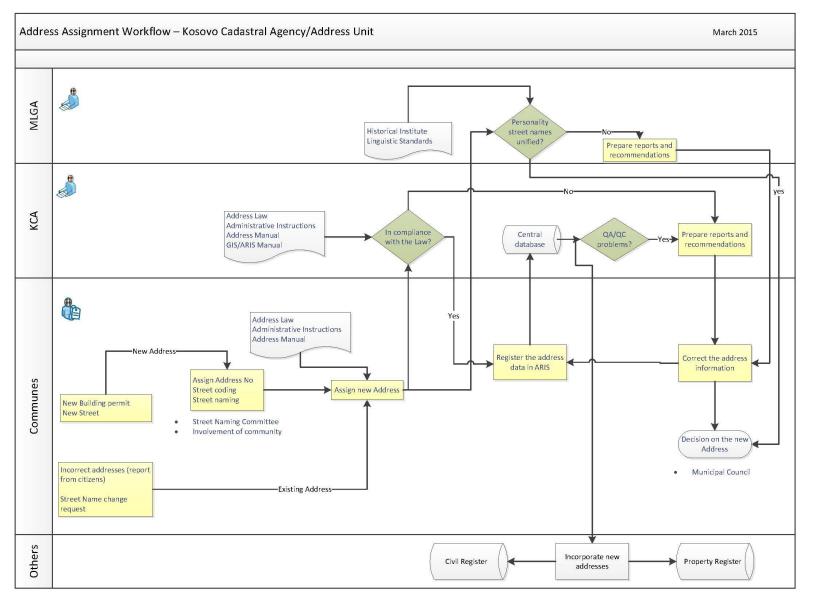
Addressable objects are called stable structure on earth has come to us in service for different needs;





### Address workflow











### Role of ARIS

- Fulfill legal requirements
- WEB GIS application in use by KCA and UPO
- Designed to create and maintain addresses in Kosovo
- Efficient collection, storage & query of address data
- Maintain a centralized data
- Graphical and textual part
- Based on SOA technology
- Serves as the basis for the distribution of data
- Flexible and advanced information system
- Sustainable system







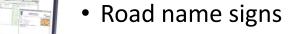




- Orthophoto
- Road network
- Borders
- Building footprints
- Cadastral maps
- Topographic maps vectors
- Points with coordinates
- etc ...



- Road Names
- Address Numbers
- Landmarks



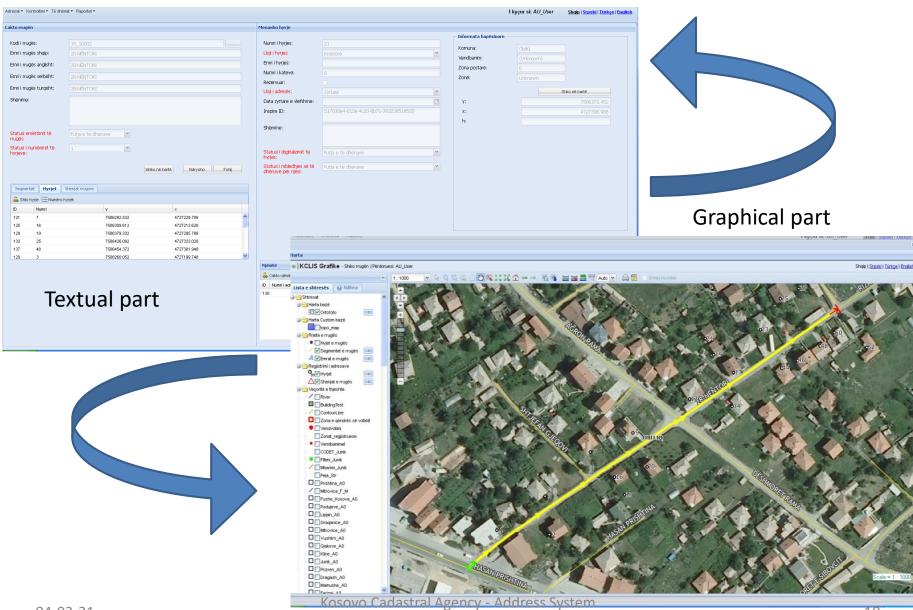
• Etc...

Address Register Aplication



# **Address Register interface**



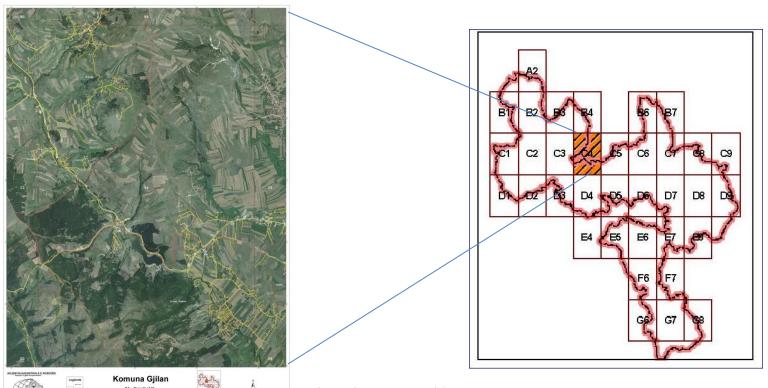




### Data collection, preparatory work



- A0 maps (900) to identify the start and end of road
- Maps A3 (110,000) collection of entrances of objects in the field
- Five regional training sessions held
- Preparation of manuals of addressing and data collection





## Data collection and digitization in ARIS



- 1. About 22,000 street identified and digitized in ARIS (start, end, code)
- 2. Are digitized over 420,000 buildings entrances throughout Kosovo









### CITIZEN INFORMATION FOR NEW ADDRESS



Purpose: Informing citizens / institutions for official and unified addresses and linking with other state registers

- ✓ Importance of signalization
  - Informing Citizens about New Addresses
  - Use of new addresses from third parties courts, taxes, KEDS,
     Post Office etc.
  - Connection with other state registers
- Pilot in Shtime: How did the address fulfillment?
  - Dissemination of Personal Documents through Post
  - Other communal services faster and more qualitative



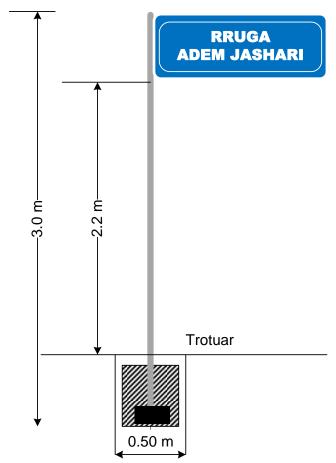




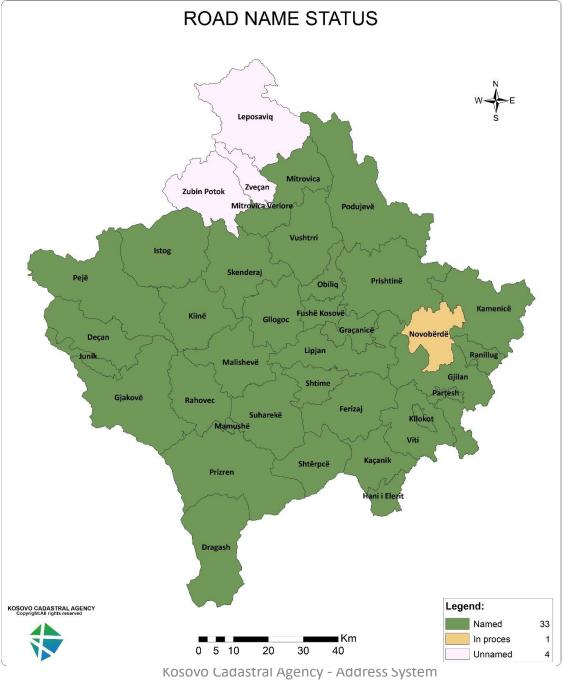
#### Address signs status

- In 31 municipalities the installation of road name signs is completed;
- In 12 municipalities are completed the installation of address number signs;



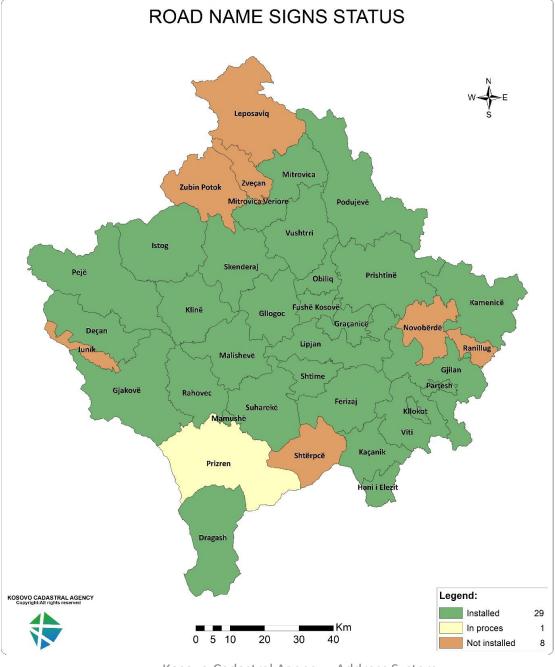






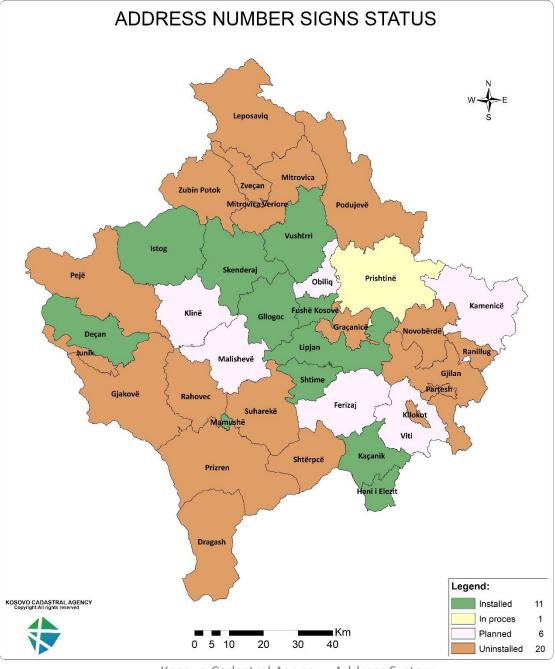




















# **Road updating**



### **Address Data Dissemination**



- NSDI framework
- KCA Geoportal & Metadata System:
  - Discovery
  - View
  - Download
  - Data service
- Civil Registry Agency (CRA)
- Government Ministries
- Public enterprises Banks
- Courts

- Kosovo Agency of Statistics
- Post and Telecom of Kosovo;
- Police;
- Emergency;
- Firefighters;
- Central Election Commission;
- Etc...



### Address data usage



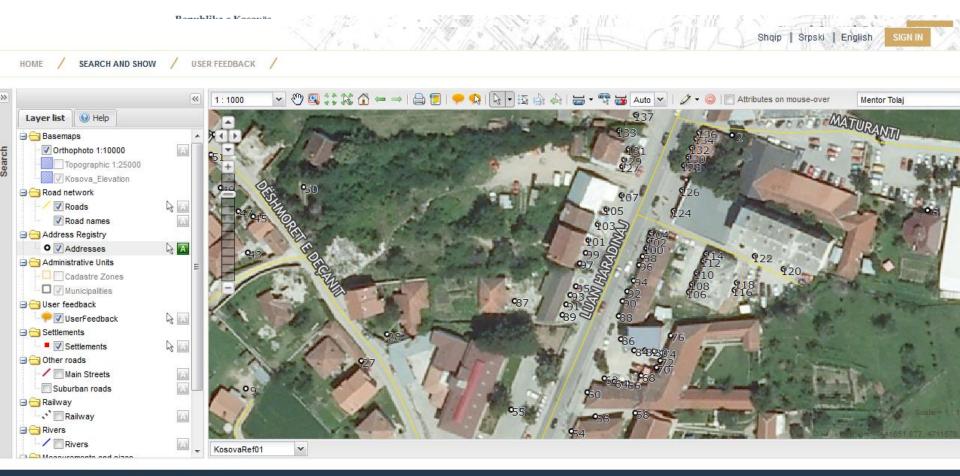
- Through Geoportal
- Linking the address database with other institutions databases
   (CRA, KEDS, Banks, Courts, Water utilities, CEC etc..)
- Installation of street name signs and entrance numbers signs,
- Through web services
- Distribution of official addresses to the more than 16 institutions
- Distribution of official addresses to the international navigation companies, TomTom, OpenStreetMap, HereWeGo Maps.



# **National Geoportal**



#### www.geoportal.rks-gov.net



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## Use of Addresses in property register KCLIS

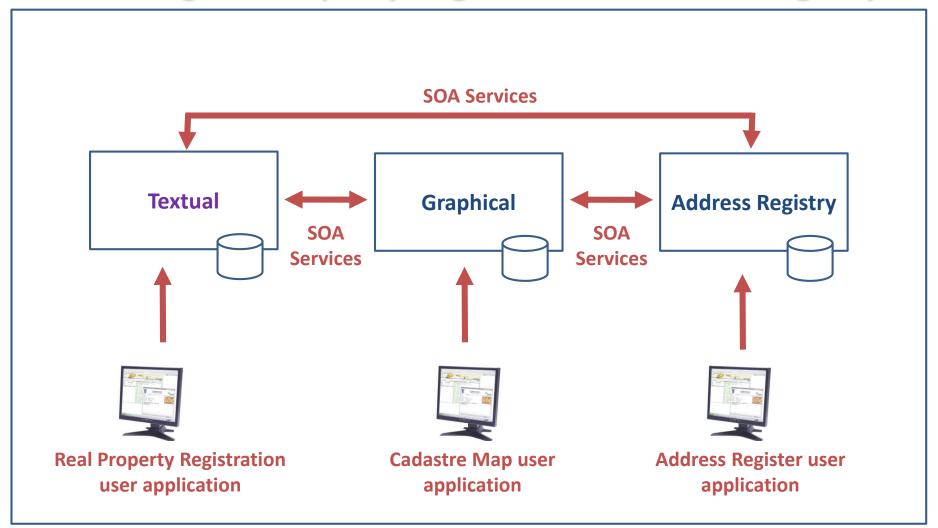


- Cadastral parcels
- Residential units
- Commercial units
- Public buildings
- Groups of buildings (campus, farm)
- Points of Interest / Cultural objects
- Right-holders (ownership, partial ownership, right of servitude, utilities)





# **Linking the Property Register with Address Registry**







# Linking the addresses with CRA

- ✓ Memorandum of Understanding with CRA
- ✓ The registration form for citizens
- ✓ Sharing the form along with the address number
- ✓ Sharing the form along with the address number

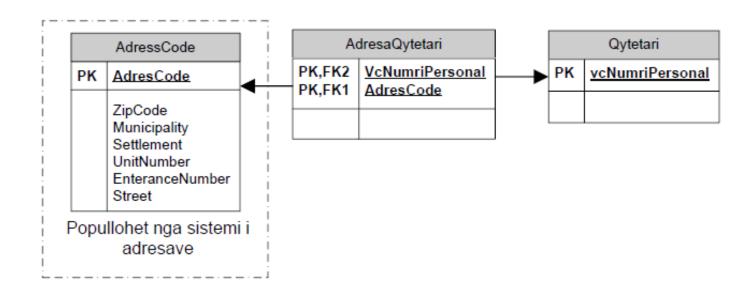


1 Personal d	lata of a	pplicant			
Name					
Surname					
Data of birth (dd-mm-yyyy)		1			
Place of birth					
PIN*					
2 Date of add	dress c	nange			
Date	316336	lange			
3 Previous a	ıddress				
Streetname +					
Village					
Municipality					
4 New addre Streetname +	nr.				
Village					
Municipality					
Renting or own property		*	owning (place circle are	•	
Residing* (see			lace circle around correc		
			ress with applicant		
Name	Sun	name	(dd-mm-yyyy)	Place of birth	(passport- IDcard)*
	-			<del> </del>	
	-				
	$\neg$				
			nt/owner when app	licant will take re	sidence in
already occi Name		name	Date of birth	Place of birth	PIN
			(dd-mm-yyyyy)		(passport- LDcard)
Date	+		Signature		
				1	





# Linking the addresses with CRA data model





# The benefits of the address system at KAS



- The address system will support GIS activities in georeferencing statistical data,
- They are necessary to increase the quality of data from Statistical Surveys and Data from Registrations,
- Orientation of Staff during Surveys and Fieldwork for Population / Agriculture Census.
- Enables the connection of statistical data to different registers
- Visualization of statistical data through maps etc.







Unik code	Name and number of road	Municipality	Х	Y
2210016219	SKËNDERBEU 219	Shtime	7501710	4700309
2210016217	SKËNDERBEU 217	Shtime	7501744	4700327
2210016215	SKËNDERBEU 215	Shtime	7501781	4700365
2210016379	SKËNDERBEU 379	Shtime	7501721	4700716
2210016377	SKËNDERBEU 377	Shtime	7501745	4700733
2210016381	SKËNDERBEU 381	Shtime	7501771	4700753

2210016219					
22	100162	219			
Municipal code	Road name code	House number			





# The enumeration circuits used during the 2011 census and statistical surveys.

#### Registry circles with system addresses



Legend:
Buildings
Enumeration Areas 004
Others EA-s
Health Institutions
Primary School

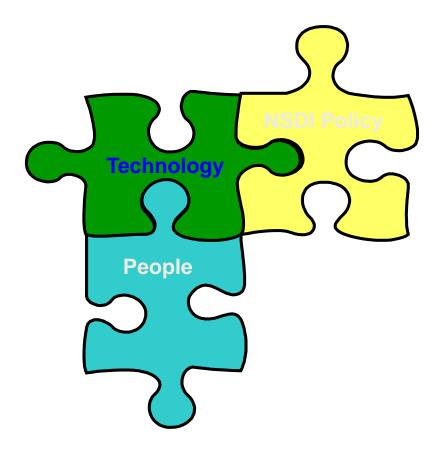




# Technology can help us deal with today's challenges



...if we have access to the *right* data in the *right* format to take action at the *right* time...

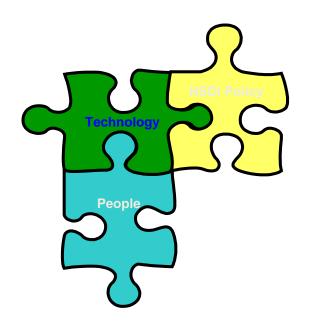






— "Sharing data is the first step, but only when we really share people, knowledge, and resources will we achieve our ambitious goals."

Alessandro Annoni:







# THANK YOU FOR YOUR ATTENTION