# TEMPLATES STEP 1. MARKET SEGMENTATION FOR VALENCIA CITY PROJECT
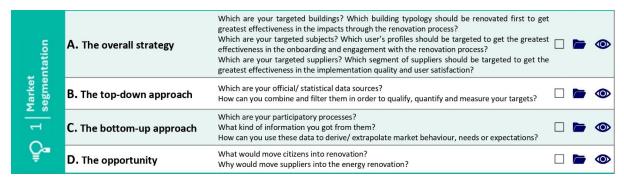


*Figure 1. Test materials for step 1*

This step (and its sub-steps) aims to map demand and supply side of the **Valencian renovation market** towards designing an OSS service in its context. The document is an example of the application of the templates to Valencia (Spain) and serves as model for the transferability of the Citizen Hub concept. Additional information is available in **D2.1. Demand & supply side mapping: Methodology & results from the 2 pilots** and its corresponding spreadsheet.

The list of documents submitted for Step 1 in Valencia is described below:

# A. Presentation

| 1 | Presentation |
|---|---|

Before starting this journey, present yourself and your friends:

| Organization | Activity | Geographical scope | Contact |
|---|---|---|---|
| VCE | providing the OSS service | Municipality of Valencia | alejandro.gomez@canviclimatic.org<br>http://canviclimatic.org/es/ |
| IVE | supports the network of OSS offices through knowledge, expertise and tools for deep renovation | Region of Valencia (NUTS2 ES52) | asanchis@five.es<br>mnavarro@five.es<br>lramirez@five.es<br>https://www.five.es/ |
| VRCP | main contact point with communities of individual owners | Region of Valencia (NUTS2 ES52)<br>Castellon & Valencia (NUTS3 ES522 & ES523)<br>Alicante (NUTS3 ES521) | gerencia@icafv.es<br>contadorcensor@icafv.es<br>https://aaffvalencia.es/ |
| Unió de Consumidors de la Comunitat Valenciana | representing the demand side | Region of Valencia (NUTS2 ES52) | |
| Asociación Valenciana de Consumidores y Usuarios (AVACU) | representing the demand side | Region of Valencia (NUTS2 ES52) | |
| Ajuntament d'Onda | representing the public sector | Municipality of Onda | |
| Ajuntament de Gandia | representing the public sector | Municipality of Gandia | |
| Ajuntament d'Alcoi | representing the public sector | Municipality of Alcoi | |
| Diputació de València | representing the public sector | Valencia Province (NUTS3 ES523) | |
| Promociones e Iniciativas Municipales de Elche (PIMESA) | representing the public sector | Municipality of Elche | |
| Federació Valenciana de Municipis i Províncies (FVMP) | representing the public sector | Region of Valencia (NUTS2 ES52) | |
| Conselleria d'Habitatge i Arquitectura Bioclimàtica | representing the public sector | Region of Valencia (NUTS2 ES52) | |
| Basque Government - Environment, Territorial Planning and Housing | representing the public sector | Basque Country (NUTS2 ES21) | |
| Consejo Valenciano de Colegios de Agentes de la Propiedad Inmobiliaria (API) | representing the supply side | Region of Valencia (NUTS2 ES52) | |
| Asociación española de Gestores Públicos de Vivienda y suelo (AVS) | representing the supply side | Spain (ES) | |
| Colegio Oficial de Arquitectos de la Comunidad Valenciana (COACV) | representing the supply side | Region of Valencia (NUTS2 ES52) | |
| Colegio Territorial de arquitectos de Castellón (CTAC) | representing the supply side | Castellon Province (NUTS3 ES522) | |
| Colegio Oficial Ingenieros Industriales (IICV) - contacto VCE | representing the supply side | Region of Valencia (NUTS2 ES52) | |
| COGITI - contacto VCE | representing the supply side | Region of Valencia (NUTS2 ES52) | |
| Unión Profesional (contacto VRCP) | representing the supply side | Region of Valencia (NUTS2 ES52) | |
| Asociación Valenciana de Empresas del Sector Energético (AVAESEN) | representing the supply side | Region of Valencia (NUTS2 ES52) | |
| Asociación de empresas Promotoras de Valencia (APROVA) | representing the supply side | Region of Valencia (NUTS2 ES52) | |
| Federación Valenciana de Empresarios de la construcción (FEVEC) | representing the supply side | Region of Valencia (NUTS2 ES52) | |
| Asociación de Promotores Inmobiliarios de la Provincia de Alicante (PROVIA) | representing the supply side | Castellon Province (NUTS3 ES522) | |
| Plataforma Tecnológica Española de Construcción (PTEC) | representing the supply side | Spain (ES) | |
| ATECYR – Spanish Technical Association of Air Conditioning and Refrigeration | representing the supply side | Spain (ES) | |

# B. Objectives

| 2 | Objectives | | |
|---|---|---|---|
| Now, draft the main objectives pursued through the implementation of the OSS concept. This is important to orientate the search below. | | | |
| | | | |
| My first objective is to | boost renovation rate | | |
| Also, I would like to | ensure quality of those renovation | | |
| And, if possible, I would try to | involve and aware demand side on the renovation benefits for the long term | | |
| | eradicate energy poverty | | |
| add rows if needed… | | | |

# C. Study area

| 3 | Study area | | |
|---|---|---|---|
| This one is important to define your limits | | | |
| | | | |
| **Do you already have a physical office in place?** | | | |

| YES | | | |
|---|---|---|---|
| define geographical area around it: | | | |
| | name | code | comment |
| Meters from the office: | | | |
| Districts: | Poblados Maritimos | 4625011 | CP 46011 aprox |
| | Camins al Grau | 4625012 | CP 46023 aprox |
| | Algiros | 4625013 | CP 46021, 46022 aprox |
| add rows if needed… | | | |
| The whole city: | | | |
| add rows if needed… | | | |

| NO | | | |
|---|---|---|---|
| define the wider geographical area under your scope: | | | |
| | name | code | comment |
| Districts: | | | |
| add rows if needed… | | | |
| The whole city: | Municipality of valencia | 4625000 | |
| add rows if needed… | | | |
| The whole region: | Comundad Valenciana | NUTS2 ES52 | |
| add rows if needed… | | | |

# D. Mapping

## D.1. Object (buildings)

| 4 | Mapping | | |
|---|---|---|---|
| 1 | Buildings | | |
| The objective for mapping and segment buildings is to get the greatest effectiveness in the impacts achieved through the renovation process | | | |
| | | | |
| **First collect information about your building stock context (regulations, history, grants schemes, bureaucracy, or other programs related to buildings):** | | | |
| building regulations around 1980; mandatory IEE for 50 years old buildings; EP Certificates not so extended, just when owner wants to rent or sell; good climate so usually no heating systems and bad insulation (mostly windows); protecting from sun heat should be important; mostly condominiums with difficult collective decision making; grants for some components; tax benefits for some components | | | |

Then select your characterization criteria:

| component approach for step-by-step renovation replicability | morphology approach for integral renovation replicability |
|---|---|

And list the attributes related to previous approach that you would need to analyse:

| Attribute | availability | thresholds/ cat. | source | format | granularity | date | comments |
|---|---|---|---|---|---|---|---|
| age | Y | 50 | INE - cadaster | xls - shp | building | | |
| quality | Y | 6 | INE - cadaster | xls - shp | building | | |
| energy efficiency | Y | E | ICV | WMS | building/dwelling | | excel table under request |
| roof space | Y | 30 | cadaster | shp | building | | to be cooked in the future |
| heating & DHW | Y | NO; gas or butane | Valencia statistics | xls | districts | | |
| orientation | N | SE to SW | | | | | flat city, so homogeneously distributed |
| TABULA | Y | AB, MFH, TH, SFH | cadaster | shp | building | | |
| add row if needed... | | | | | | | |

Now is time to mix, overlap, cluster: define your typologies, keeping in mind which context circumstances or potential impact related to your approach are interesting for you:

| Typology | Attribute (interval) | Attribute (interval) | Attribute (interval) | Attribute (interval) | Attribute (interval) | solution COMPLEXITY | comments |
|---|---|---|---|---|---|---|---|
| old | age (> 50) | TAB (MFH) | | | | high | for IEE analysis |
| all bad quality roof | quality (> 6) | TAB (TH) | | | | low | roof intervention? |
| innefficient | EP (> E) | | | | | medium | for EPC analysis |
| no heating | heating (NO; not electric) | | | | | low | |
| pot PV | roof (> 30) | | | | | low | |
| no windows | all res | | | | | low | |
| sunscreen? | orient (S to W) | TAB (AB) | | | | low | have all the orientations |
| add rows if needed... | | | | | | | |

And finally, you need to quantify (& locate):

| Typology | 4625011 (Poblados Maritimos) | 4625012 (Camins al Grau) | 4625013 (Algiros) | City | Rate | IMPACT | comments |
|---|---|---|---|---|---|---|---|
| old | 1.889 | 813 | 241 | 13.923 | 21 | high | |
| all bad roof | 1.288 | 6 | 0 | 2.061 | 63 | very high | |
| innefficient | 551 | 375 | 261 | 5.309 | 22 | high | |
| 'no' heating | 413 | 20 | 162 | 2.531 | 23 | high | all city (grants) |
| pot PV | 5.840 | 3.352 | 1.910 | 59.210 | 19 | medium | roofs, not buildings |
| no windows | 4.441 | 1.339 | 636 | 28.440 | 23 | high | all city (grants) |
| sunscreen? | 109 | 100 | 299 | 2.904 | 17 | medium | |
| add rows if needed... | | | | | | | |
| Res buildings | 4.441 | 1.339 | 636 | 28.440 | | | |
| Rate | 29 | 26 | 47 | | | | |

According to previous data, select your QUICK WINS* zones and/or typologies:

| Typologies: | all bad roof | pot PV | sunscreen? | | | | |
|---|---|---|---|---|---|---|---|
| Zones: | 4625011 | 4625012 | 4625013 | | | | |

## D.2. Subject (citizens, owners, occupants…)

| 4 | Mapping |
|---|---|
| 2 | Demand side |

The objective for mapping and segment people is to get the greatest effectiveness in the onboarding, involving and engagement with the renovation process

**First collect information about your demographic context (regulations, history, habits, traditions, problems…):**

**Then select your characterization criteria:**

| **Economic** approach, for affordability | **Social** approach, for motivation | **Organizational** approach, for simplification |
|---|---|---|

**And list the attributes related to previous approach that you would need to analyse:**

| Attribute | availability | thresholds/ cat. | source | format | granularity | date | Other |
|---|---|---|---|---|---|---|---|
| age | Y | women | INE | xls | district (SC) | | |
| gender | Y | 36-60 | INE | xls | district (SC) | | |
| income | Y | <7500 | INE | web Map service | district (SC) | | |
| household size | Y | 1; 2; >2 /children) | INE | xls | district | | |
| vulnerability | Y | Y | calab.es | web Map service | district (SC) | | |
| visits/ inquiries | Y | | OSS | xls | person | | |
| propert admin? | | Y | VRCP | | building | | |
| add rows if needed… | | | | | | | |

**Now is time to mix, overlap, cluster: define your profiles, keeping in mind which context circumstances or potential drivers related to your approach are interesting for you:**

| Profile | Attribute (interval) | Attribute (interval) | Attribute (interval) | Attribute (interval) | Attribute (interval) | solution COMPLEXITY | comments |
|---|---|---|---|---|---|---|---|
| local hero | visits (Q4) | | | | | low | |
| power couples or | size (<3) | children (NO) | income (high) | | | medium | |
| with children | size (>2) | children (YES) | | | | high | |
| absent landlord | | | | | | medium | |
| vulnerable | | | | | | low | |
| condominium | property admin? (YES) | | | | | high | with proper tools, AF could lower this |
| add rows if needed… | | | | | | | |

**And finally, you need to quantify (& locate):**

| Profile | Area/ District | Area/ District | Area/ District | City | Rate | IMPACT | comments |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| add rows if needed… | | | | | | | |
| Households | | | | | | | |
| Rate | | | | | | | |

**According to previous data, select your target profiles:**

| Profiles: | | | | | | | |
|---|---|---|---|---|---|---|---|

# D. 3. Means (products, services, tools…)

| 4 | Mapping |
|---|---|
| 3 | Supply side |

The objective for mapping and segment suppliers is to get the greatest effectiveness in the implementation quality and user satisfaction through the renovation process

**First collect information about your construction sector context (regulations, history, market, business, traditions, problems…):**

**Then select your characterization criteria:**

| Process approach, for accompanying and providing customed solutions (based on the strategies to be defined from the buildings' typologies analysis). This approach is much related with the morphological approach for building characterization, intended for a full deep renovation. | Solution approach, for providing specific products and/or services to be defined from the buildings' typologies analysis. This approach is much related with the components approach for building characterization, intended for a step-by-step renovation. |
|---|---|

**And list the attributes related to previous approach that you would need to analyse:**

| Attribute | availability | thresholds/ cat. | source | format | granularity | date | Other |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| add rows if needed… | | | | | | | |

**Now is time to mix, overlap, cluster: define your supplier's profiles, keeping in mind which context circumstances or benefits related to your approach are interesting for you:**

| Profile | Attribute (interval) | Attribute (interval) | Attribute (interval) | Attribute (interval) | Attribute (interval) | solution COMPLEXITY | comments |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| add rows if needed… | | | | | | | |

**And finally, you need to quantify (& locate):**

| Profile | Area/ District | Area/ District | Area/ District | City | Rate | IMPACT | comments |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| add rows if needed… | | | | | | | |
| Households | | | | | | | |
| Rate | | | | | | | |

**According to previous data, select your target profiles:**

| Profiles: | | | | | |
|---|---|---|---|---|---|

# E. Summary

| 3 | Summary | | | | | | | | | | | |
|---|---------|---|---|---|---|---|---|---|---|---|---|---|
| This last step consists of putting everything together to have a better overview | | | | | | | | | | | | |

| Table | | | | | | | | | | | | |
|-------|------|----------|----------------------|------------|------------|-------------|----------------------------|-------------|--------------------------|-----------|--------------------------|-------------|
| Zones | Area (km2) | Dwellings | Residential Buildings | Population | households | Contractors | Focus Building Typology | N Building T | Focus Demand profile | N Demand P | Focus Supplier profile | N Supplier P |
| 46011 | 3,968 | 31.135 | 4.441 | 58.440 | 24.255 | 22.097 | all bad roof | 1.288 | | | | |
| 46023 | 2,367 | 30.950 | 1.339 | 64.335 | 25.925 | 22.097 | pot PV | 350 | | | | |
| 46021 | 2,978 | 22.100 | 636 | 38.160 | 15.835 | 22.097 | sunscreen? | 299 | | | | |
| Energy Office Area | 9,313 | 84.185 | 6.416 | 160.935 | 66.015 | 22.097 | old | 2.943 | | | | |
| Valencia | 134,650 | 419.955 | 28.440 | 790.755 | 328.975 | | old; innefficient | 13.923 | | | | |
| Valencia Reg. | | | | | | 22.097 | grants | | | | | |
| add row if needed... | | | | | | | **To solutions** | | **To comunity** | | **To network** | |