CONCEPTUAL DIAGRAM FOR THE ELDERLY:

an analytical methodology for the visualization of complex problems with territorial cluster applications

Lisbon, 30th June 2016

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2. The conceptual diagram framework
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What is a conceptual diagram?
A structural and simplified visual display
1. How did it start?

2012 – Preparing the conceptual framework to discuss the new *Operational Programme of Employment and Social inclusion 2014-2020:*

“*Presentations for policy makers have to be both detailed and intuitive*”

And built a conceptual diagram for analysing the Portuguese complex labour market.

2015 – Decision to apply the conceptual diagram to other population groups

2016 – Discussing the elderly conceptual diagram:

- Tarki Research Centre in Budapest - visiting grant to Hungary to compare their a system indicators for the elderly development with our own conceptual framework
  (IPOLIS - Integrated Poverty and Living Condition Indicator System)

2016 – Validating the diagram as a tool for visualization of complex problems:
2 - The conceptual diagram framework

Building the analytical framework (Phase 1)

1. Define the analysis axes: main drivers

2. Identify the quadrants: main profiles

3. Signalling the risks and evolving vectors: main effects due to changing processes
   - Caused by Contextual changes
   - Population characteristics changes

4. Characterize the quadrants and axes
   - With qualitative and quantitative instruments (Indicator Systems or Composite or single indicators)
   - Guaranteeing comparability, reliability for adequate territorial and temporal levels

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Legend:
- **Risks**
- **Less**
- **More**

Portugal position in the context of the European average:
- Persistent at-risk-of-poverty rate: 132
- Severe material deprivation rate of elderly: 130

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5. Identify policies and measures

List the policies that best:
- meet the needs of the identified populations
- increase development and quality of life.

6. Monitoring and evaluation policies and measures

This strategic monitoring and evaluation perspective relies on a system of indicators that gives information on results and impacts.
3. CASE STUDY - the elderly

3.1 Applying the conceptual diagram

... The elderly aren’t all the same...

dynamic # dependent # unprotected # disadvantaged
3 - Case Study: the elderly

Motivation to apply the conceptual framework

Some facts:

• In Portugal, 1 out of 5 inhabitants is aged over 65 (around 2 million persons).
• For every 100 active age persons there are 31 old people.
• In the EU context, Portugal is one of the most aged countries.
• Among Western European countries has the 3rd worst position in the Global AgeWatch Index 2015 (that evaluates the socioeconomic wellbeing of the elderly).

In accordance with the internationally consensus...

<table>
<thead>
<tr>
<th>Desirable Scenario for Inclusive growth for the elderly</th>
<th>Flagship initiatives for the elderly</th>
<th>Cross action strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishing the conditions necessary to active and healthy ageing with greater levels of autonomy and higher quality of life (and reducing isolation, poverty and social exclusion)</td>
<td>European Year of Ageing and Inter-generational Dialogue initiative (2012)</td>
<td>• Empowerment, activation of the potential of the elderly • Preventive and Remedial Actions or policies</td>
</tr>
</tbody>
</table>
3.1 Applying the conceptual diagram to the elderly

The axes or the main drivers

MORE AUTONOMY

MORE RESOURCES

less autonomy

less resources
3.1 Applying the conceptual diagram to the elderly

The Resource Axis

**More Resources**
- Social and technical skills (Leadership, consensus, communication, ...)
- Adequate housing (And without architectural barriers)
- Virtual networks / Access to ICT
- Physical accessibility and lack of architectural barriers
- Entrepreneurial dynamism
- Societies open to change
- Societies that value the role of the elderly

**Less Resources**
- Income
- Qualifications (including ICT)
- Transport (individual)
- Own resources
- Formal and/or institutional responses
- Informal networks
- Neighborhood networks
- Neighbor networks
- Access to recreational and sports equipment and services
- Take geographical and access to goods and services

**Territorial Context**
- Degree of urbanisation
- Resources of the territories
- Environmental conditions
- Demographic dynamics

**Resources of the territories**
- Transport networks
- Services intended for the elderly
- Family networks
- Social networks

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3.1 Applying the conceptual diagram to the elderly

The Autonomy Axis

- **Physical Condition**: Mobility, Ability to perform day to day activities, State of health

- **Cognitive/Emotional**: Mental health: Depression, lucidity/dementia, Ability to (re)learn or use ICT, Self-esteem

- **Social**: Presence / absence of life projects, Quality of family relationships (poor quality=control, abuse and / or domestic violence), Take an active role in society

- **Decision Autonomy**: Decision on managing income, Decision on how to use better her/his house, Decision on expenses and daily options

The Autonomy Axis varies from "less autonomy" to "more autonomy".
3.1 Applying the conceptual diagram to the elderly

The quadrants

- Dependent: Older people with formal and/or institutional resources
  - LESS AUTONOMY (physical condition, cognitive/emotional, social, financial, ...)
  - LESS RESOURCES (Own resources, informal networks, institutional responses, territorial and social context, ...)

- Dynamic: Labour
  - MORE AUTONOMY (physical condition, cognitive/emotional, social, financial, ...)
  - MORE RESOURCES (Own resources, informal networks, institutional responses, territorial and social context, ...)

- Unprotected: Older people with informal and/or self-consumption resources
  - LESS AUTONOMY (physical condition, cognitive/emotional, social, financial, ...)
  - LESS RESOURCES (Own resources, informal networks, institutional responses, territorial and social context, ...)

- Disadvantaged: Market
  - MORE AUTONOMY (physical condition, cognitive/emotional, social, financial, ...)
  - MORE RESOURCES (Own resources, informal networks, institutional responses, territorial and social context, ...)

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3.1 Applying the conceptual diagram to the elderly

Describing the quadrants

2) Dependent
With resources/without autonomy
- Have relative material comfort but experience limitations and reduced mobility;
- They need institutional or family member support to meet their daily needs.
Includes both those living in residential homes as well as those receiving support at home

3) Unprotected
Without resources/without autonomy
- Unable to undertake daily tasks or make decisions over matters relating themselves.
- Don’t benefit from any support / have low income levels/live in no public services areas.
- Their basic needs go barely met + face violence, maltreatment, lack of accessibility (territorial, housing).

May be completely isolated or on the survival threshold

1) Dynamic
With resources/with autonomy
- Higher levels of income, qualified; living in well-equipped territories; have access to services;
- play active roles in their social context (e.g. supporting dependents as carers or family member volunteering)
May be in the labour market and even contribute to the social security system.

4) Disadvantaged
Without resources/with autonomy
- Lack own resources or live in contexts that don’t provide goods and services (e.g. transport, housing).
- Postpone retirement or combine low pension levels with other types of earnings,
- On occasion, provide for other family members experiencing unemployment and over indebtedness.

May stay in the labour market, out of a need for resources.
3.1 Applying the conceptual diagram to the elderly

The processes of ageing as an evolving vector

**Autonomy axis:**
Age is likely to be inversely related to autonomy: Old age is associated with low autonomy

**Resources axis:**
Age is likely to be inversely related to resources: Old age is associated with less resources

**Less income means:**
- In a context of inflation, pensions depreciate over time.
- There are more expenses, i.e. higher spending on medicines, increased need for support (health care, in carrying out day to day tasks, etc.).
- Higher proportion of people with shorter contributory careers and lower qualifications with implications on the pensions values.
3.1 Applying the conceptual diagram to the elderly

**Depersonalization**

**Social devaluation of the elderly role**

**Institutionalization**

**MORE AUTONOMY**

**MORE RESOURCES**

**Dependent**

**Older people with formal and/or institutional resources**

**Changing conditions (resources and/or autonomy)**

**Dinamic**

**Older people with informal and/or selfconsumption resources**

**Disadvantaged**

**Deprivation**

**Indigence /shortage**

**Isolation**

**Life risk**

**Unprotected**

**Lack of appropriate contexts for participation**

**Social devaluation of the elderly role**

**Associated risks**

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3. CASE STUDY – the elderly

3.2 Characterizing the elderly based on different indicators
- Axes indicators
- Quadrants indicators

... The elderly aren’t all the same...

*the greyish* # the seniors # the 4th agers

### 3.2 Characterizing the elderly based on different indicators

#### Axes indicators

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Best approach</th>
<th>Advantages</th>
<th>Data gaps / limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>to compare, to rank and to monitor evolution</td>
<td>System of indicators by components &amp; subcomponents e.g. IPOLIS: Integrated Poverty and Living conditions Indicator System</td>
<td>i) Provides methodological and statistical framework to monitor the situation of vulnerable groups; ii) Contains statistical information from different sources and areas; iii) Provides comparable information (time and country) for each indicator.</td>
<td>i) Doesn’t provide an individual level measure for each quadrant; ii) Not available at subnational territorial level or microdata; iii) Not possible to have an elderly global evolution view – some indicators improve, others deteriorate.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Objective</th>
<th>Description</th>
<th>Value</th>
</tr>
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<tbody>
<tr>
<td>Housing cost overburden rate</td>
<td>EU average</td>
<td>Portugal</td>
</tr>
<tr>
<td>Overcrowding rate</td>
<td>The lower</td>
<td>The better</td>
</tr>
<tr>
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<td>Long-standing illness or health problem</td>
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<td>Employment rate (65-69)</td>
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<td>Proportion of older people living alone</td>
<td>The better</td>
<td></td>
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<td>Healthy life years at age 65+ (women)</td>
<td>The better</td>
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<tr>
<td>Participation rate in education/training</td>
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</tr>
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<td>Portuguese evolution in recent years (better or worse than before)</td>
<td>-10%</td>
<td>0%</td>
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<td>Severe housing deprivation rate</td>
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How does Portugal perform in the context of the EU average?

On the Resources axis, Portugal has weak performance regarding material living condition indicators.

Most of the autonomy indicators score badly when contrasted with EU average.

Employment rate for the aged between 70 to 74 (and 65-69) is much higher in Portugal, relatively to EU avg.

However, it's not clear if it’s a sign of autonomy or deprivation.

### 3.2 Characterizing the elderly based on different indicators

#### Axes indicators

<table>
<thead>
<tr>
<th>RESOURCES (-is +)</th>
<th>Portugal position in the context of the European average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistent at-risk-of-poverty rate</td>
<td>132</td>
</tr>
<tr>
<td>Severe material deprivation rate of elderly</td>
<td>130</td>
</tr>
<tr>
<td>At-risk-of-poverty after social transfers</td>
<td>109</td>
</tr>
<tr>
<td>Relative median at-risk-of-poverty gap</td>
<td>84</td>
</tr>
<tr>
<td>Severe housing deprivation rate</td>
<td>114</td>
</tr>
<tr>
<td>Overcrowding rate</td>
<td>67</td>
</tr>
<tr>
<td>Housing cost overburden rate</td>
<td>31</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTONOMY (-is +)</th>
<th>Portugal position in the context of the European average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment rate (70-74)</td>
<td>242</td>
</tr>
<tr>
<td>Self-perceived general health</td>
<td>175</td>
</tr>
<tr>
<td>Long-standing illness or health problem</td>
<td>115</td>
</tr>
<tr>
<td>Self-perceived limitations in daily activities</td>
<td>104</td>
</tr>
</tbody>
</table>

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<tr>
<th>AUTONOMY (+is +)</th>
<th>Portugal position in the context of the European average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment rate (65-69)</td>
<td>162</td>
</tr>
<tr>
<td>Proportion of older people living alone</td>
<td>73</td>
</tr>
<tr>
<td>Healthy life years at age 65 (women)</td>
<td>104</td>
</tr>
<tr>
<td>Participation rate in education/training</td>
<td>82</td>
</tr>
<tr>
<td>Medium/high level internet skills (ICT)</td>
<td>63</td>
</tr>
<tr>
<td>Internet use for civic/political participation</td>
<td>60</td>
</tr>
</tbody>
</table>
3.2 Characterizing the elderly based on different indicators

Axes indicators

How does Portugal perform in the context of other EU members states

Regarding resource indicators, Portugal’s position is not the worst result registered by a member state, even if it scores below the medium point (50%).

Comparative to other member states
Portugal achieves no more than average performance rates in autonomy indicators.

e.g. the employment rate for old people is quite high in Portugal, but it’s not the highest of the 28 member states.
### 3.2 Characterizing the elderly based on different indicators

**Axes indicators**

#### How was the evolution of Portugal in the recent years?

The Portuguese evolution has been positive considering material living conditions and other resource indicators.

In the last decade, improvement has been quite strong in autonomy indicators, e.g. although the employment rate for old people has been dropping in recent years, it is still high, with more than 1 out of 10 seniors employed.
3.2 Characterizing the elderly based on different indicators

Quadrants indicators

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</thead>
<tbody>
<tr>
<td>to identify, portray and quantify at individual level</td>
<td>Unique Indicator e.g. Census 2011 indicator (municipalities level)</td>
<td>i) Provides credible and disaggregated information for different elderly subgroups and territorial levels;</td>
<td>i) Not using the most up-to-date information;</td>
</tr>
<tr>
<td></td>
<td>“Resident population with at least one difficulty by age group and main source of income”</td>
<td>ii) Enables quantification of people assigned to each axis (resources or autonomy);</td>
<td>ii) Providing one single indicator;</td>
</tr>
<tr>
<td>to identify, portray and quantify at individual level</td>
<td></td>
<td>iii) Guarantees an accurate universe, avoiding double counting issues, etc.;</td>
<td>iii) Leaving out the task of quantifying other axis components;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iv) Allows identification of municipality territorially based patterns.</td>
<td>iv) Some rigidity in positioning individuals on the axes due to Census concepts and their methodological limitations.</td>
</tr>
</tbody>
</table>
3.2 Characterizing the elderly based on different indicators

Portraying the elderly distribution

The Greyish (65-74 years old)

The Seniors (75-84 years old)

The 4th agers (85 or +)
3.2 Characterizing the elderly based on different indicators

**Quadrants indicators**

**Legend:** The incidence for each profile type – the darker the higher the % of elderly classified in that profile-type.

It should be highlighted that: metropolitan areas and the Algarve contain major contrasts: from the point of view of earnings and autonomy, the prevalence of more favourable situations coexists with unfavourable positions.
3.2 Characterizing the elderly based on different indicators

**Prevalence of clusters**

Each municipality is colored with its highest population weights

(Last quartile of the distribution of the population weight in each profile)

Intermediate or other less clear situations where there is no prevailing profile where left blank

Closing data gaps may colour these white municipalities...
4. Challenges ahead

Strategic analysis for the elderly
1) Developing a monitoring scheme for policies and measures;
2) Supporting Portugal 2020 and Post 2020 Cohesion policy funds

Applying this analysis framework to other themes
1) Working age population and the labour market
2) Children and young people and the school
3) Other sectoral areas

Close data gaps - Improving quantitative characterization to face limitations
1) Developing a system of national indicators that reflects the IPOLIS pilot project
2) Devising a system of output and result indicators for monitoring and evaluation
3) Improving analysis of available information on the elderly (e.g. microdata)
CONCEPTUAL DIAGRAM FOR THE ELDERLY

Thank you

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