SMART ME UP!

Smart City Examples Across Europe

Thursday, 23rd June 2016

Hamburg, Germany
COMMUNAL COMPANIES MERGING AS SMART APPROACH: KIKINDA TOWN IN SERBIA CASE STUDY

Danilo S. FURUNDŽIĆ
Dijana JAKŠIĆ-KIURSKI
Ivana PETROVIĆ

Public Company “Kikinda”, Kikinda, Serbia
1. INTRODUCTION
THIS PAPER OBJECTIVE

• HYPOTHESIS: communal companies merging is possible approach to get smart city

• CASE STUDY: Kikinda - Town in Serbia

• ECONOMIC ECHO: municipal budget response
2. SMART TOWN CONCEPT
URBANISM CHALLENGES

• Contemporary analysis: space & functions synergy

• City 5 characteristics (Lynch, 1981): vitality, sense, fitness, access, control

• Urban planning and design includes: systems theory, project management, ICT
SMART CITY CONCEPT

• Smart City (SC) ≈ Intelligent / Digital City
• SC connects infrastructure: physical, IT, social, business
• SC components are: economy, people, governance, mobility, environment, living
• SC is: sustainable, competitive, innovative
SMART TOWN

• Town is smaller than city
• Smart town has attributes of smart city
• Smart financing of society & infrastructure provides sustainable development
• Communal companies merging can improve municipal budget
3. SERBIA IN TRANSITION
TRANSITION PROCESS

TRANSITION

EASTERN EUROPE

SERBIA
# STATE & PUBLIC COMPANIES IN SERBIA (2012)

<table>
<thead>
<tr>
<th>COMPANY TYPE</th>
<th>Companies</th>
<th>Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Companies controlled by Agency</td>
<td>600</td>
<td>100,000</td>
</tr>
<tr>
<td>Large public &amp; state companies</td>
<td>50</td>
<td>110,000</td>
</tr>
<tr>
<td>Local public companies</td>
<td>650</td>
<td>70,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1,300</strong></td>
<td><strong>280,000</strong></td>
</tr>
</tbody>
</table>
PUBLIC SECTOR REFORM

- Serbia transition: complex, slow, delayed
- Transition key issue: public sector reform
- Local public companies share:
  - 50% of total public companies
  - 25% of total public employees
4. KIKINDA TOWN
KIKINDA : TOWN IN SERBIA
KIKINDA MUNICIPALITY
### KIKINDA MUNICIPALITY DATA

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total area</td>
<td>783 km²</td>
</tr>
<tr>
<td>Agricultural area</td>
<td>70 538 ha</td>
</tr>
<tr>
<td>Population (2011)</td>
<td>59 453</td>
</tr>
<tr>
<td>Number of population per 1 km² (2011)</td>
<td>76</td>
</tr>
<tr>
<td>Population average age (2011)</td>
<td>42.4</td>
</tr>
<tr>
<td>Natural increase per 1.000 inhabitants (2014)</td>
<td>– 6.8</td>
</tr>
<tr>
<td>Number of employees (2014)</td>
<td>13 679</td>
</tr>
</tbody>
</table>
INFRASTRUCTURE & ECONOMY

- Urbanized town of Kikinda
- Proximity of Romania and Hungary
- Developed road and rail network
- Fertile agricultural land
- Natural raw materials
- Industrial tradition
5. COMMUNAL MERGING
HISTORICAL BACKGROUND

- Kikinda communal history:
  - Habsburg Monarchy (18th century)
  - Yugoslavia Kingdom (after WW I)
  - Yugoslavia Republic (after WW II)
  - Serbia Republic

- Communal infrastructure factors:
  - natural, historical, economic, social

- Communal companies changes:
  - establishing – splitting - merging
COMMUNAL COMPANIES (1952-2015)
NEW COMPANY: PC KIKINDA

- Public company “Kikinda” (PCK)
- PCK: for communal Infrastructure & services
- PCK established: 2014
- PCK divided: sectors, services, departments
- PCK mission: compound services, sustainable technologically and economically
6. MERGING ECONOMIC ECHO
COSTS & CASH FLOW

- Costs: economical indicator of company
- Five companies (5PC) are replaced by Public company Kikinda (PCK)
- Costs of 5PC & PCK are not comparable
- Cash: base of every business
- Cash outflow: base for comparison
## CASH OUTFLOW: 5 COMPANIES & PC KIKINDA

<table>
<thead>
<tr>
<th>Outflow</th>
<th>Before merging:</th>
<th>After merging:</th>
<th>Difference:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2014 (state)</td>
<td>2016 (plan)</td>
<td>(5PC-PCK)</td>
</tr>
<tr>
<td>Five companies (5PC)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash [milion €]</td>
<td>5.410</td>
<td>2.119</td>
<td>3.291</td>
</tr>
<tr>
<td>Share [%]</td>
<td>73</td>
<td>86</td>
<td></td>
</tr>
<tr>
<td>PC Kikinda (PCK)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash [milion €]</td>
<td>1.838</td>
<td>0.358</td>
<td>1.480</td>
</tr>
<tr>
<td>Share [%]</td>
<td>25</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Operating activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investing activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>7.410</td>
<td>2.477</td>
<td>4.933</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>
PART OF CASH OUTFLOW COMPARISON

<table>
<thead>
<tr>
<th>Outflow</th>
<th>Before merging: Five companies (5PC)</th>
<th>After merging: PC Kikinda (PCK)</th>
<th>Difference: (5PC-PCK)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2014 (state)</td>
<td>2016 (plan)</td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>[milion €]</td>
<td>[milion €]</td>
<td>[milion €]</td>
</tr>
<tr>
<td>Employees’ expenses</td>
<td>2.249</td>
<td>1.392</td>
<td><strong>0.857</strong></td>
</tr>
<tr>
<td>Supplies &amp; services</td>
<td>2.854</td>
<td>0.581</td>
<td><strong>2.273</strong></td>
</tr>
</tbody>
</table>
MUNICIPAL BUDGET RELAXATION

[million €]

20 15 10 5 0

2008 2009 2010 2011 2012 2013 2014

Budget

15.480 12.143 15.101 17.228 18.666 17.505 16.396

Kikinda Municipality

4.963 2.545 1.802 2.876 3.756 2.736 2.483

Investments & Maintenance

[year]
• Budget focus: CONSUMPTION

• Annual investments: only 19% of Budget

• Budget pay: 3PC (three public companies)
BUDGET AFTER MERGING

• Budget focus: INVESTMENTS

• Budget: financial savings enable investments

• Budget pay not: 3PC (being in liquidation)
7. CONCLUSIONS
COMMUNAL COMPANIES MERGING ...

... PIONEER VENTURE IN SERBIA THESE DAYS

... SIGNIFICANT SAVINGS IN MUNICIPAL BUDGET

... POSSIBLE PATH TOWARDS SMART TOWN
AUTHORS CITED

• ALBINO et al., 2015
• DOXIADIS, 1968
• ILIJAŠEV, 2002
• JP KIKINDA, 2016
• KERZNER, 2019
• LYNCH, 1981

• MUMFORD, 1961
• OPŠTINA KIKINDA
• PMBOK, 2013
• UVALIĆ, 2010
• VESELINOVIĆ, 2014
• YOUNG, 2014
THANK YOU FOR ATTENTION