

*Open Data Initiative:
Challenges and Opportunities for NSOs of
OIC Member Countries*

OIC-StatCom

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TurkStat

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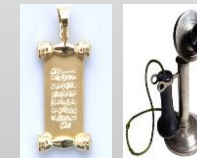
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Outline

- **Introduction**
 - What forces us ? (Change)
 - What is Open Data, why?
- **Change, towards Open Data, any barriers ?**
 - Barriers for governments
 - Barriers for citizens
- **Why and how to eliminate the barriers ?**
 - Open government data principles (liberalising data)
 - Evidence-based policy making
 - Facilitating data integration
- **TurkStat methods**
 - Knowledge sharing (BPM,DDI, Data Mining, ETL, SDMX, Content Man)
 - Data sharing (www, web services, microdata labs, social media, data.gov.tr, GIS, etc.)

Introduction

- What forces us?
- Change! technological,economical,social change around the world
- Changing expectations of our shareholder
 - increasing access to data,
 - finding/combining data,
 - getting to reuse of the national statistics.
- Increasing amount of information and knowledge sharing
 - YouTube, after google, is now second largest search engine in the world,
 - 1.5 million pieces of content shared daily on Facebook,
 - Mobile devices will be world's primary connection tool to the Internet in 2020,
 - 250 million visitors each month to You,Tube, and Facebook,
 - On-line newspaper readers are up 30% (Bhagowalia, 2012).
- What is Open Data?
 - Open data is an idea : data freely available to everyone, free to use and republish, no restrictions from copyright, patents or other mechanisms of control (Auer et al., 2007).



Change, towards Open Data, any barriers ?

- **Barriers for governments**

- general attitude, lack of knowledge and awareness (reluctance to seeing for profit by 3rd parties),
- it is still a confusing field (lack of a common vocabulary),
- change is hard (risk of overcomplicating issues, resistance of officers to adapt new roles)
- losing control, feeling disrupted (governments concern losing control, data considered as power),
- fears about security and liability (fear of manipulation of data, security threats),
- seeing viable ways (public service does not see own need for open data, uncertain economic impact),
- cost of transition (lack of funds, it may not be cheap however it may not be as expensive as it's feared).

Change, towards Open Data, any barriers ? – con't.

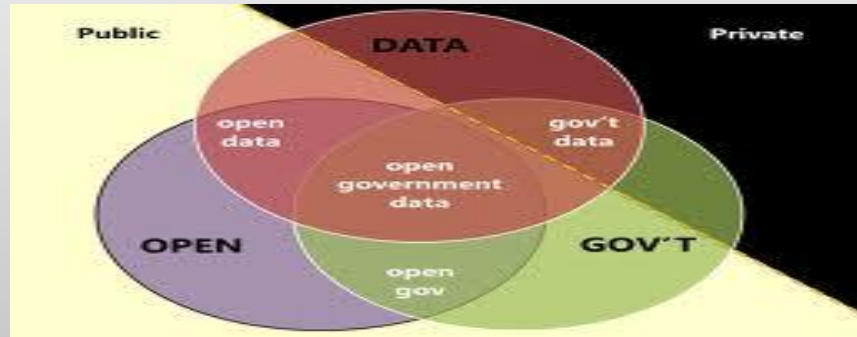
- Barriers for citizens
 - increasing access to data (lack of standard open data policies, unable to reach most of the data)
 - publishing data (inconsistent data formats, ensuring correct transformation, lack of ad-hoc standards)
 - finding/combining data (unclear what is where, lack of metadata, lack of interoperability)
 - getting to reuse (unclear conditions for reuse, limited user friendliness)

Why and how to eliminate the barriers ?

- Open Government Data

- Each piece of public data that has been gathered from a statistical unit should be available to everyone without any restrictions.

- Open Govn't data is a significant source of “İstishare with shareholders”



source: Garkusha (2011)

Why and how to eliminate the barriers ? – con't.

- Open Government Data Principles

- No restrictions (including, financial, technical barriers, non-discriminatory, open license for reuse, machine readable for automatic processing),
- Ensuring the anonymity of statistical units,
- With partner organisations, provide access to identifiable data only in a secure environment, such as the VML (the Virtual Micro data Laboratory),
- Not release underlying data before the release of the statistical release that it underpins (The Office for National Statistics, 2012).

Why and how to eliminate the barriers ? – con't.

- Evidence-based Policy Making (EBPM)
 - “helps people make well informed decisions about policies, programmes and projects by putting
 - the best available evidence at the heart of policy development and implementation” (Davies, 2004)
 - EBPM can have an even more significant impact in developing countries.



eg.Adnks-MEB EBPM



Why and how to eliminate the barriers ? – con't.

- The advantages of implementing an evidence-based approach
 - helps ensure the policies are responding to the real needs of the community,
 - can highlight the urgency of an issue which requires immediate attention,
 - enables information sharing amongst other members,
 - can reduce government expenditure through eliminating ineffective policies,
 - ensures that decisions are made based on transparency and accountability (Australian Bureau of Statistics, 2010).

Why and how to eliminate the barriers ? – con't.

- Facilitating data integration

- data sources has different structures and data models built on different relations
- therefore, an open format that contains a common data and metadata structures should be exist for exchange statistical data or information.
- common data models should have the following properties;
 - provide shared understanding of a domain,
 - organise knowledge in a machine-comprehensible way,
 - give an exploitable meaning to the data.



TurkStat Methods

- Knowledge sharing
 - standardization of all the 9 BPM processes below, from (1)Specify Needs to (9)Evaluate,
 - implements metadata based technologies such as DDI and SDMX,
 - metadata based technologies will be applied in both Harzemli and Central Distribution Database projects to enable machine readable data format for authomatic data exchange among shareholders through data.gov.tr, www, web services , etc., platforms.

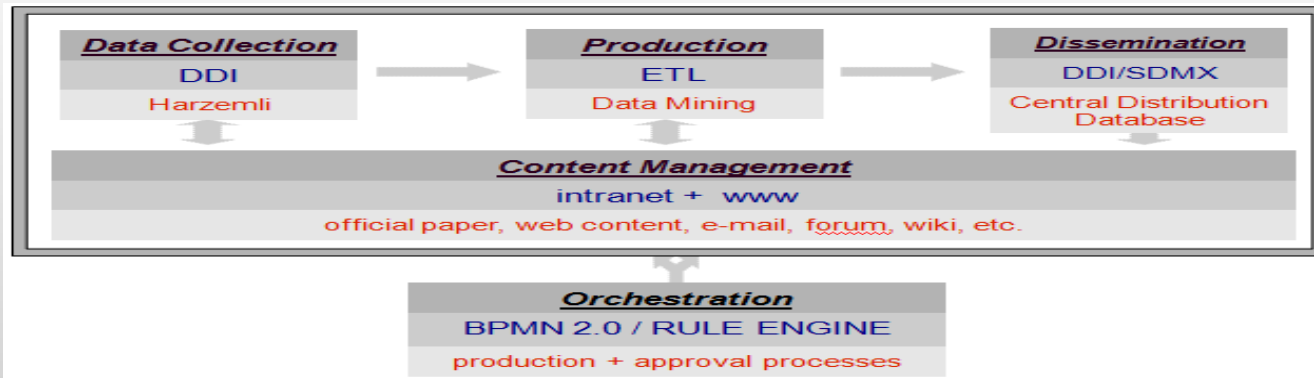
Quality Management / Metadata Management								
1 Specify Needs	2 Design	3 Build	4 Collect	5 Process	6 Analyse	7 Disseminate	8 Archive	9 Evaluate
1.1 Determine needs for information	2.1 Design outputs	3.1 Build data collection instrument	4.1 Select sample	5.1 Integrate data	6.1 Prepare draft outputs	7.1 Update output systems	8.1 Define archive rules	9.1 Gather evaluation inputs
1.2 Consult & confirm needs	2.2 Design variable descriptions	3.2 Build or enhance process components	4.2 Set up collection	5.2 Classify & code	6.2 Validate outputs	7.2 Produce dissemination products	8.2 Manage archive repository	9.2 Conduct evaluation
1.3 Establish output objectives	2.3 Design data collection methodology	3.3 Configure workflows	4.3 Run collection	5.3 Review & validate	6.3 Produce dissemination products	7.3 Produce dissemination products	8.3 Preserve data and associated metadata	9.3 Agree action plan
1.4 Identify concepts	2.4 Design frame & sample methodology	3.4 Test production system	4.4 Finalize collection	5.4 Define new variables & statistical units	6.4 Apply disclosure control	7.4 Promote dissemination products	8.4 Dispose of data & associated metadata	
1.5 Check data availability	2.5 Design statistical processing methodology	3.5 Test statistical business process	4.5 Calculate weights	5.5 Calculate weights	6.5 Finalize outputs	7.5 Manage user support		
1.6 Prepare business case	2.6 Design production systems & workflow	3.6 Finalize production system	4.6 Calculate aggregates	5.6 Calculate aggregates				
			4.7 Finalize data files	5.7 Finalize data files				

DDI SDMX

TurkStat Methods – con't.

- Knowledge sharing

- BPM, DDI, data mining, ETL, SDMX, content management are all synchronized IT projects of TurkStat, have been developing for 18 months.



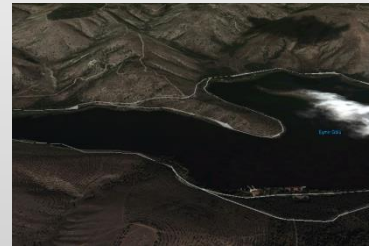
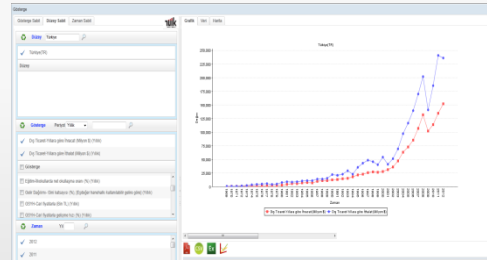
TurkStat IT Functional Model

- TurkStat aims, to keep developing its own softwares in critical tasks through its engineering experience and also benefits from open source technologies.
- Technological *know-how* improved by TurkStat could be transferred to the partner statistic offices after successful completion of the TurkStat IT Functional Model, above.

TurkStat Methods – con't.

- Data Sharing focus will be fundamentally on

- www,
- web services,
- microdata labs,
- social media,
- mobile services,
- data.gov.tr,
- GIS, visual data,
- cloud computing (after 2015).



Conclusions, Q&A

- Conclusions
 - Discussions



Thank you very much for your attention.

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