

Web - COSI EU FP7 Project
Web-Communities for Statistics for Social Innovation
Kick off Meeting

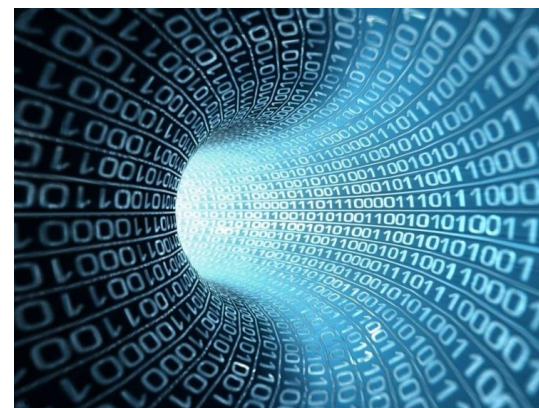
Web 2.0 Challenges for NSIs

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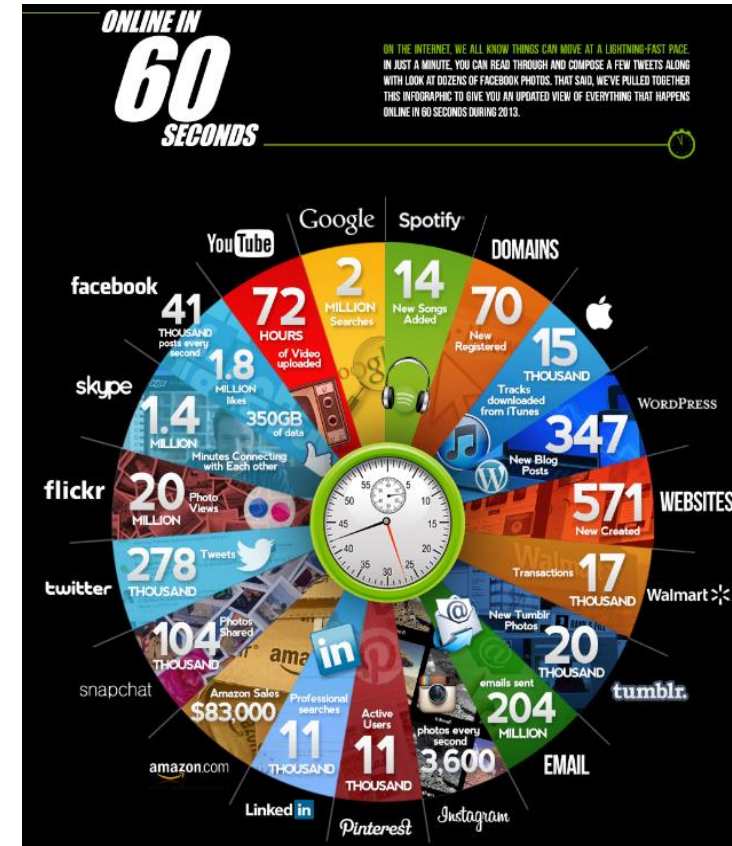
Head, Department for Integration, Quality, Research and
Production Networks Development (DIQR)

Rome, 9 January 2014



Outline

- Web 2.0 and 3.0
- Using *Web 3.0* as a data source: main opportunities
- Internet of things, Big Data, Linked Data and social networks
- Istat Modernisation Programme: *Stat2015*
- Main challenges



Web 2.0

*A Web 2.0 site may allow users to **interact and collaborate** with each other in a social media dialogue as creators of user-generated content in a virtual community.*

Examples of Web 2.0 include social networking sites, blogs, wikis, folksonomies, video sharing sites, hosted services, web applications, and mash-ups

Wikipedia

Web 3.0: the Semantic Web

The semantic web is not a separate web but an **extension** of the current one, in which information is given well-defined meaning, **better enabling computers and people to work in cooperation**

Tim Berners Lee

Web 3.0 is included two main platforms:

1. *semantic technologies*
2. *social computing environment*

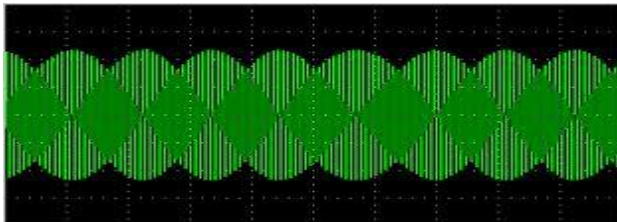
Using Web 3.0 as a Data Source: Main Opportunities (1/2)



No survey need



Huge amount of data

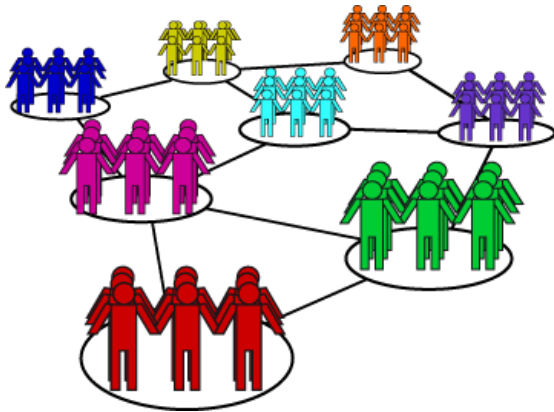


Higher frequency

Near real
time data



Using Web 3.0 as a Data Source: Main Opportunities (2/2)



**Source
heterogeneity**

What's on your mind?

feeling | how are you feeling?

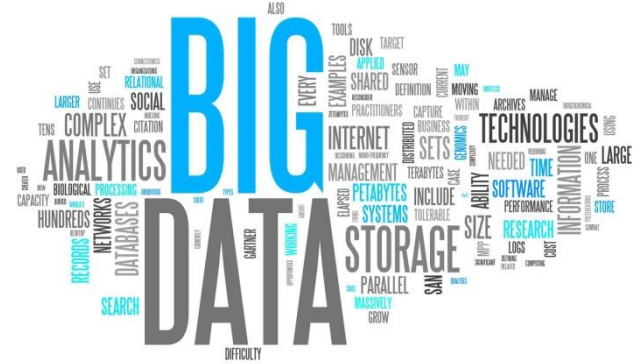
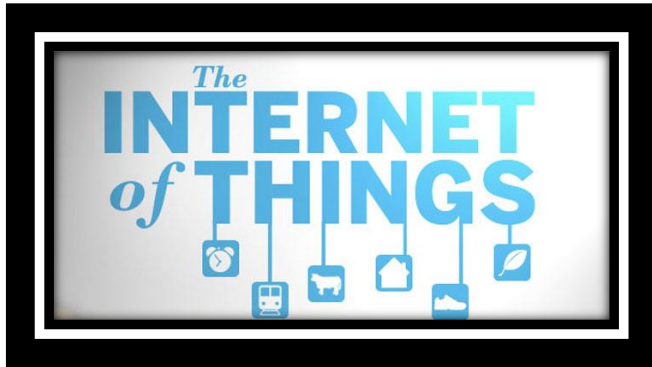
	happy
	sad
	tired
	great
	wonderful

**Help to
collect
“subjective”
dimensions**



**Survey doesn't
affect responses**

10. *Journal of the American Medical Association*, 2000; 284: 2689-2695.



New **business models** and a **huge amount** of information available for statistical analysis

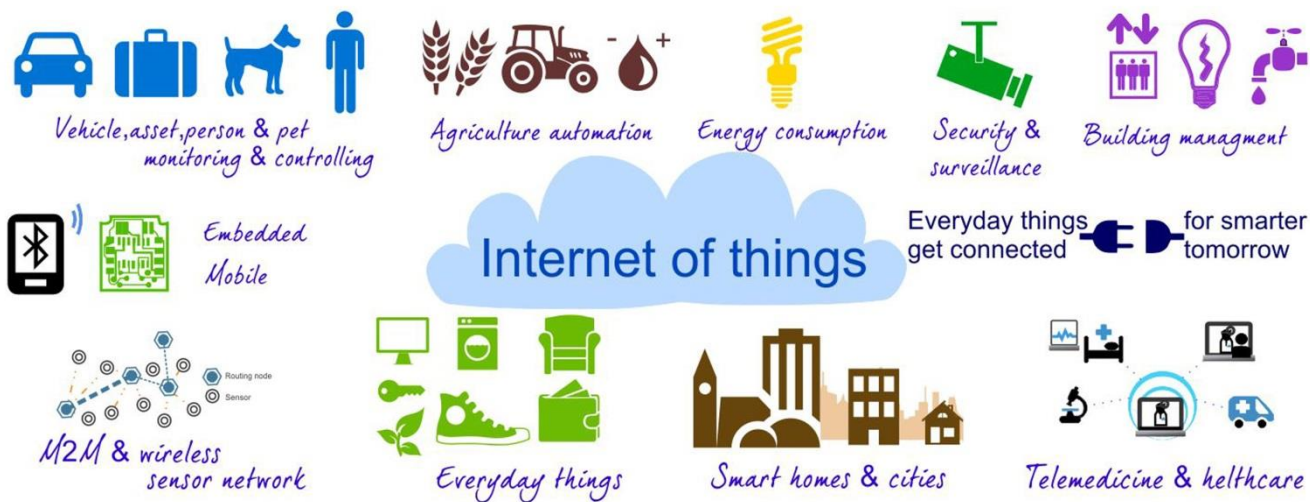
LINKED DATA



Internet of Things

The *Internet of Things* refers to uniquely identifiable objects and their **virtual representations** in an Internet-like structure.

Equipping all objects in the world with machine-readable identifiers could transform daily life and **provide a huge amount of data on utilisation of everyday products.**

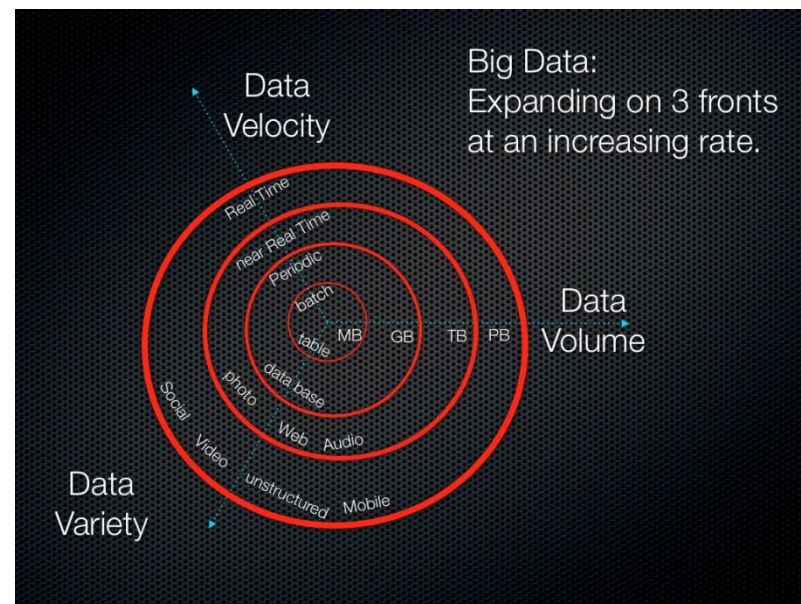


According to *ABI Research* more than 30 billion devices will be wirelessly connected to the Internet of Things by 2020.

Big data

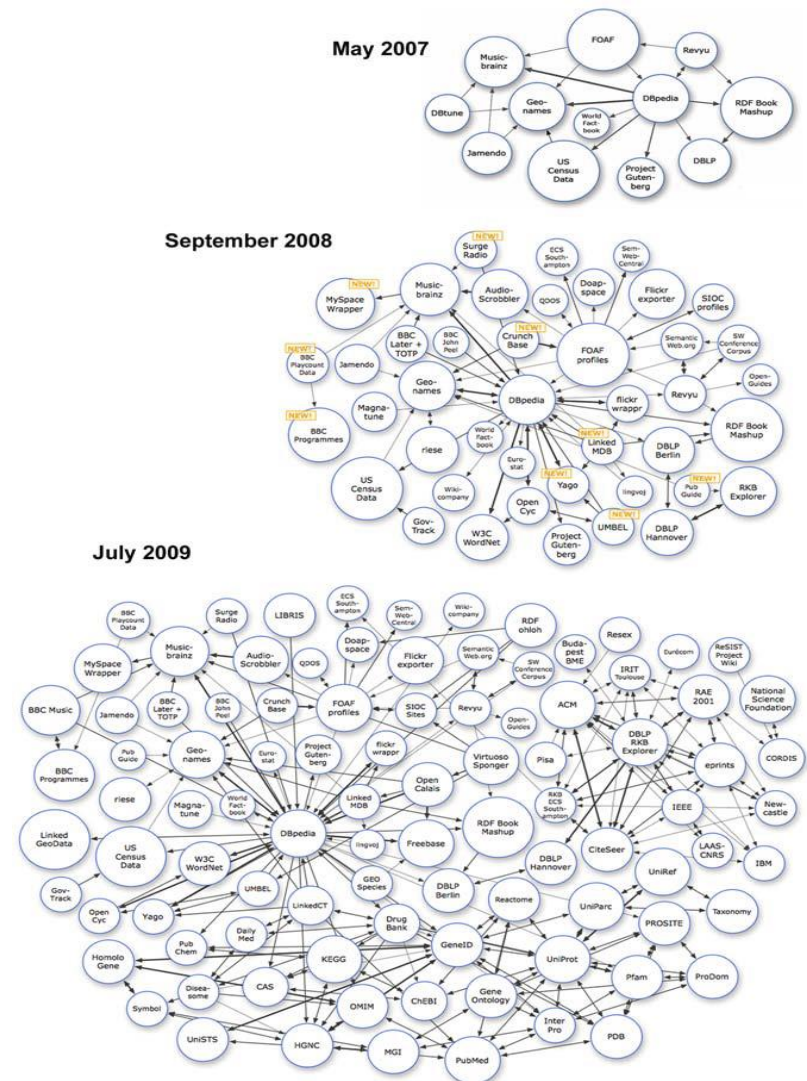
Big Data usually include data sets with sizes **beyond the ability of commonly used software** tools to capture, curate, manage and process data within a tolerable elapsed time.

Big data use inductive statistics and concepts from non-linear system identification to infer laws (regressions, non-linear relationships, and causal effects) from large data sets to reveal relationships, dependencies, and to perform predictions of outcomes and behaviours.



Linked Data

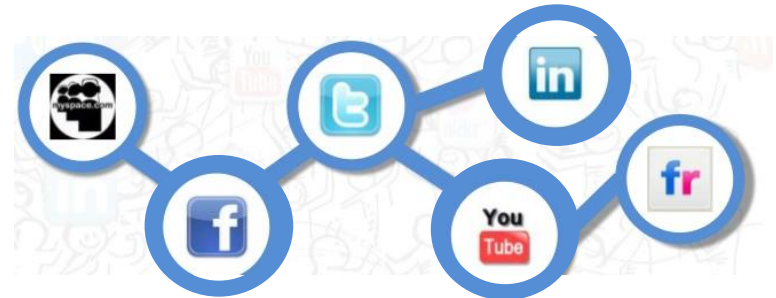
*“Just as hyperlinks in the classic Web connect documents into a single global information space, **Linked Data** enables links to be set between items in different data sources and therefore connect these sources into a **single global data space**. The use of Web standards and a common data model make it possible to implement generic applications that operate over the complete data space. **This is the essence of Linked Data**”*



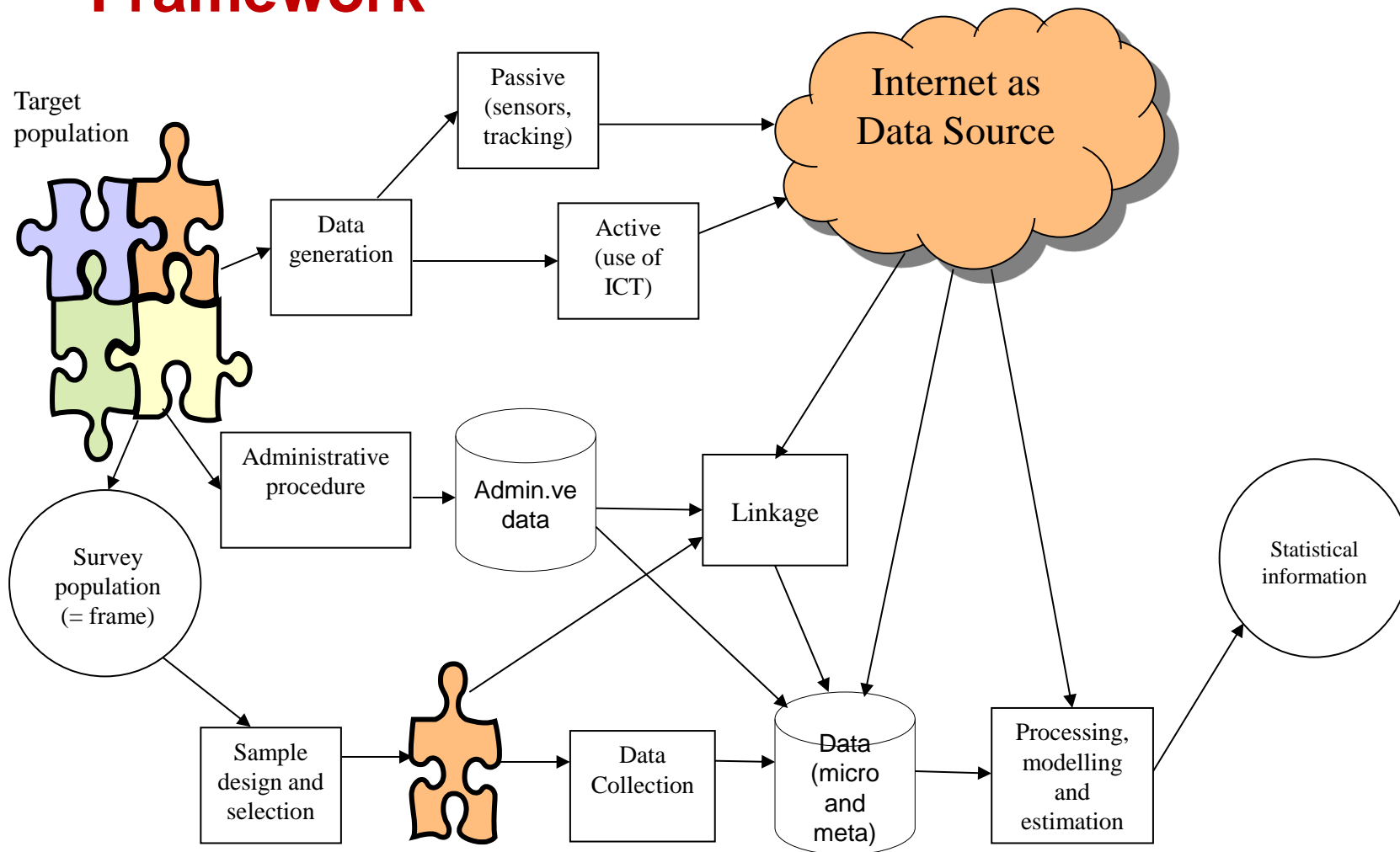
Social Networks

A social networking service is a platform to build social networks or social relations among people.

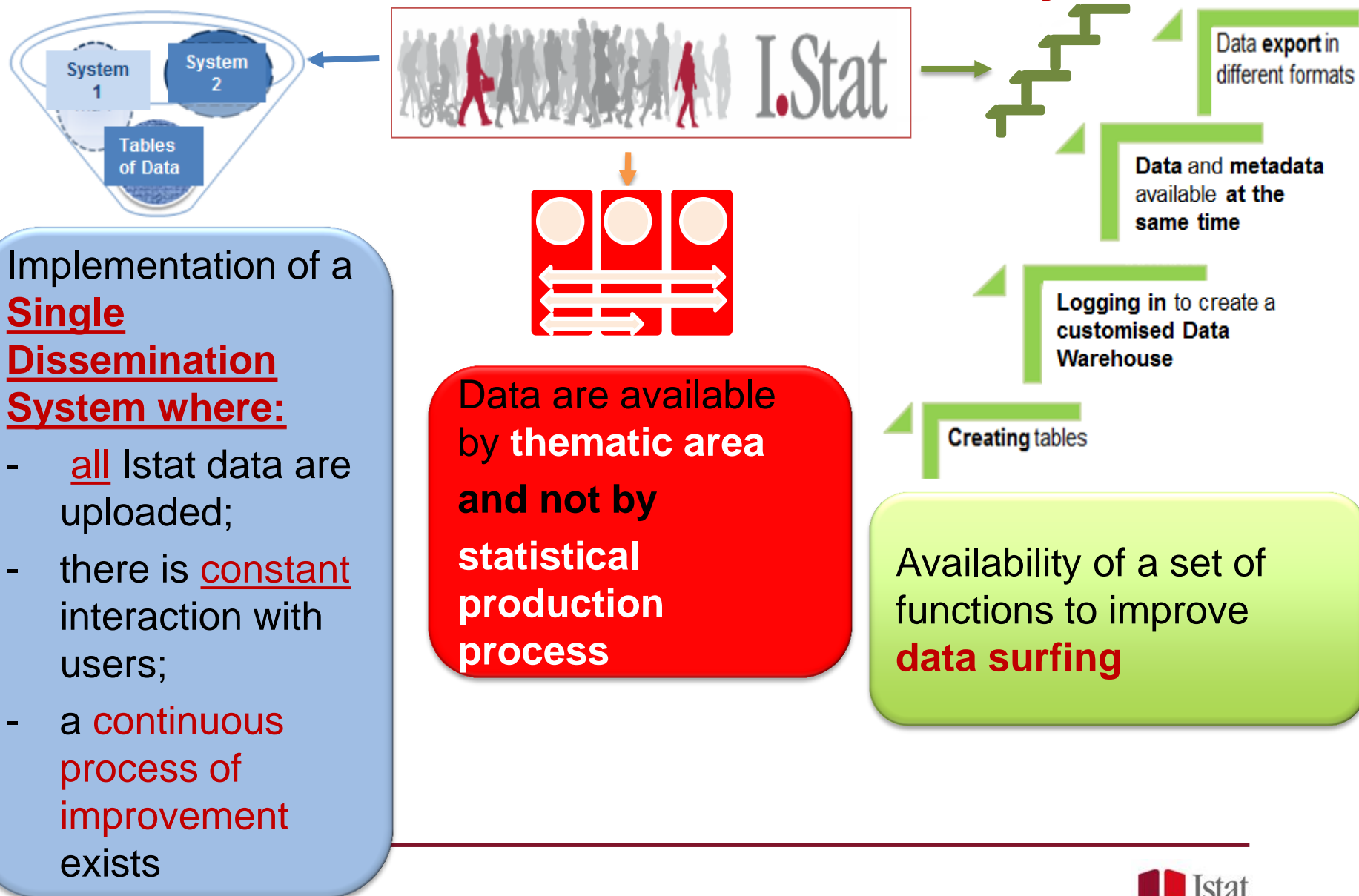
- Everyday people share their status, interests, preferences, activities, backgrounds or real-life connections across political, economic, and geographic borders
- Semantic social networks apply semantic web technologies and online social networks



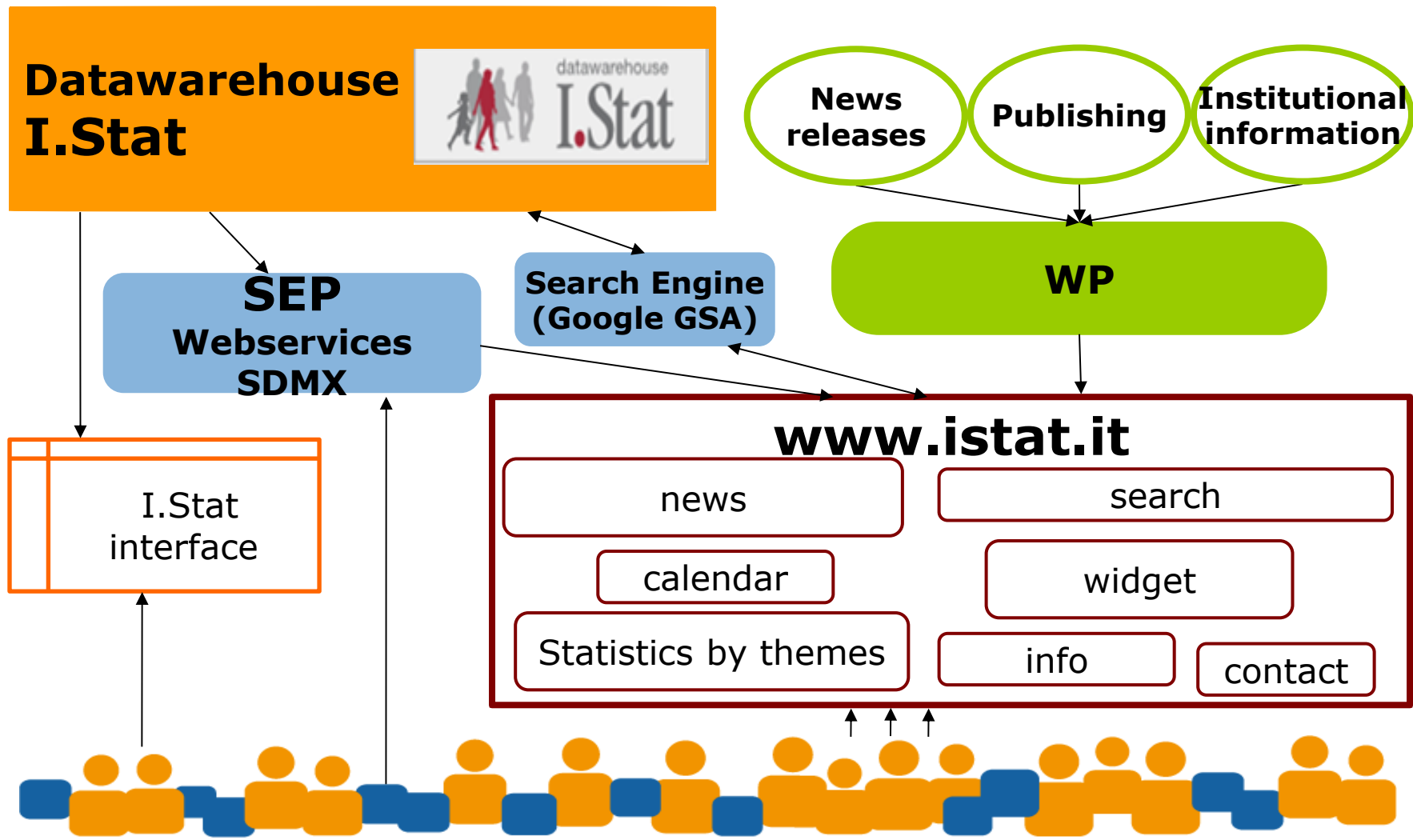
Internet as Data source: Istat Reference Framework



I.Stat – The Macrodata Dissemination System



Istat Website: a Dissemination Chain to Communicate Innovation



Sistan Portal and Community

[http://community.sistan.it/Nu/section/Base/role/\(Home/livestream\)](http://community.sistan.it/Nu/section/Base/role/(Home/livestream))



SISTANCOMMUNITY

email
password **ENTRA**

Hai dimenticato la password?

La SistanCommunity è la comunità dei professionisti della statistica ufficiale.

La SistanCommunity è un servizio innovativo offerto agli operatori, agli esperti e ai professionisti della statistica ufficiale con il quale favorire la circolazione di informazioni utili per il lavoro, la condivisione di obiettivi, problemi e soluzioni, la proposta di nuovi progetti.

"Arricchisci la tua web reputation partecipando alla community"

Istruzioni per la SISTANCOMMUNITY!
In questa community di "benvenuto", visibile a tutti i partecipanti alla SISTANCOMMUNITY, potrete rispondere e partecipare ai post inseriti dal...

Andrea Passacantilli, Benvenuto (Tutti)

benvenuti
Benvenuti, in quest'area sono disponibili le informazioni necessarie per accedere e partecipare alla Sistan Community, lo spazio on line pensato...

Raffaele Malizia, Benvenuto (Tutti)

<http://www.sistan.it>



SISTAN
SISTEMA STATISTICO NAZIONALE

la rete statistica per il paese

HOME | LINK | MAPPA | WEBINFO | CONTATTI

Facebook Like 6 | Twitter Tweet | LinkedIn Share | RSS

CONOSCI
la rete e il territorio
Conosci l'attività statistica, trovi strumenti e informazioni sui soggetti della PA

PARTECIPA
la community del Sistan
Contribuisi alla discussione di idee e progetti nella community del Sistan

CONDIVIDI
gli strumenti in rete
Accedi agli strumenti condivisi di lavoro e consultazione

Sistema statistico nazionale
| Benvenuti nel portale del Sistan
| Che cosa è il Sistan

Norme e procedure
| Normativa della statistica ufficiale
| Procedure del Sistan

Qualità e Sviluppo del sistema
| Formazione
| Promozione della cultura statistica
| Codice italiano della statistica ufficiale e qualità
| Coordinamento modulistica e sistemi informativi della PA

Finestra sull'Europa
| Sistema Statistico Europeo
| Programma Statistico Europeo
| Il Codice europeo delle statistiche ufficiali

Programma
| Circoli di qualità
| Programma Statistico Nazionale
| Piano di attuazione
| Relazione annuale al Parlamento e rilevazione EUP

Governance e consultazione
| Comstat
| Cogis
| Cuis
| Network delle autorità statistiche nazionali

Tutte le attività della Rete
| Notizie
| Eventi
| Produzione statistica

notizie dalla rete

in evidenza

Stati generali sul lavoro delle donne in Italia
Il Convegno al Cnel affronta il tema delle conseguenze sul lavoro e sulla vita delle donne delle recenti riforme nel campo del lavoro, della previdenza, del welfare

Rapporto BES 2013
Presentazione del primo rapporto sul Benessere equo e sostenibile

newsstat
la newsletter della statistica ufficiale

Coesione Sociale.Stat

bes
benessere equo e sostenibile

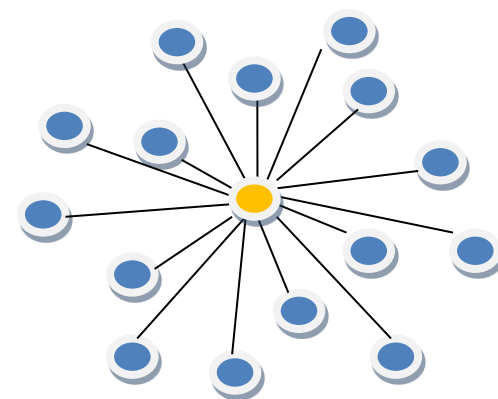
Calendario dei comuni

Conferenza di statistica

Main General Challenges

- Legislative, i.e. with respect to the **access and use** of data
- Privacy, i.e. managing **public trust** and **acceptance of data re-use** and its link to other sources
- Financial, i.e. **potential costs** of sourcing data vs. **benefits**
- Management, e.g. **policies and directives** about data management and protection
- Methodological, i.e. **data quality** and **suitability of statistical methods**
- Technological, i.e. issues related to **information technology**

Future Challenges for NSIs



- Finding **new skills** to meet web 2.0 and 3.0 needs
 - A balance between traditional statistical skills and web 3.0 skills
- Increasing **statistical culture** among users
 - Users' awareness on *Web 3.0 Data* weakness and strengths: e.g *Data Journalism*
- Continuing to ensure **data quality and integrity** within this innovative framework
- Adding the **certification of the processes and methods** used by external bodies for data production to **internal data quality certification**

