

# Where do they come from – Big Data?

- Credit card transactions
- Commodity (RFID) tracking
- Toll road recording
- Electronic tickets (travel/entertainment)
- Public services offered electronically
- Immigration control
- Mobile phone use
- Internet and social media use
- GPS tracking of traffic and transport



## Quality Management / Metadata Management

Specify Needs	Design	Build	Collect	Process	Analyse	Disseminate	Evaluate
1.1 Identify needs	2.1 Design outputs	3.1 Build collection instrument	4.1 Create frame & select sample	5.1 Integrate data	6.1 Prepare draft outputs	7.1 Update output systems	8.1 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 Conduct evaluation
1.3 Establish output objectives	2.3 Design collection	3.3 Build or enhance dissemination components	4.3 Run collection	5.3 Review & validate	6.3 Interpret & explain outputs	7.3 Manage release of dissemination products	8.3 Agree an action plan
1.4 Identify concepts	2.4 Design frame & sample	3.4 Configure workflows	4.4 Finalise collection	5.4 Edit & impute	6.4 Apply disclosure control	7.4 Promote dissemination products	
1.5 Check data availability	2.5 Design processing & analysis	3.5 Test production system		5.5 Derive new variables & units	6.5 Finalise outputs	7.5 Manage user support	
1.6 Prepare business case	2.6 Design production systems & workflow	3.6 Test statistical business process		5.6 Calculate weights			
		3.7 Finalise production system		5.7 Calculate aggregates			
				5.8 Finalise data files			

# GSBPM

## General Statistical Business Process Model

## The 15 Principles in the European – ESS - Quality Assurance Framework

Principle 1 – Professional independence

**Principle 2 – Mandate for Data Collection**

Principle 3 – Adequacy of Resources

Principle 4 – Commitment to Quality

***Principle 5 – Statistical Confidentiality***

Principle 6 – Impartiality and Objectivity

Principle 7 – Sound Methodology

**Principle 8 – Appropriate Statistical Procedures**

Principle 9 – Non-excessive Burden on Respondents

**Principle 10 – Cost effectiveness**

Principle 11 – Relevance

**Principle 12 – Accuracy and Reliability**

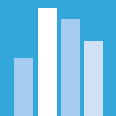
**Principle 13 – Timeliness and Punctuality**

Principle 14 – Coherence and Comparability

Principle 15 – Accessibility and Clarity



"Your recent Amazon purchases, Tweet score and location history makes you 23.5% welcome here."



# Challenges

- Data access – most Big Data are owned by private companies
- Data analysis – looking for patterns in huge piles of data
- Data usage – how do Big Data fit with the classification systems used by official statistics?
- Data quality – metadata
- Privacy issues



# Thank you very much for your attention

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