

Para que servem as
ESTATÍSTICAS?
Que uso diário lhes damos?

The role of official statistics in the EU
Walter Radermacher, Chief statistician of the EU



Seminário
21.10.2013 | Lisboa



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"In this rapidly changing, globalising world of the XXI-st century, we find ourselves with a sea of data, but, in some cases, lacking the tools we need to take swift, well-informed and effective decisions that promote the well-being of individuals, of societies, of the planet itself."

José Manuel Barroso

at the beyond GDP conference in Brussels, November 2007

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Statistics are helping us

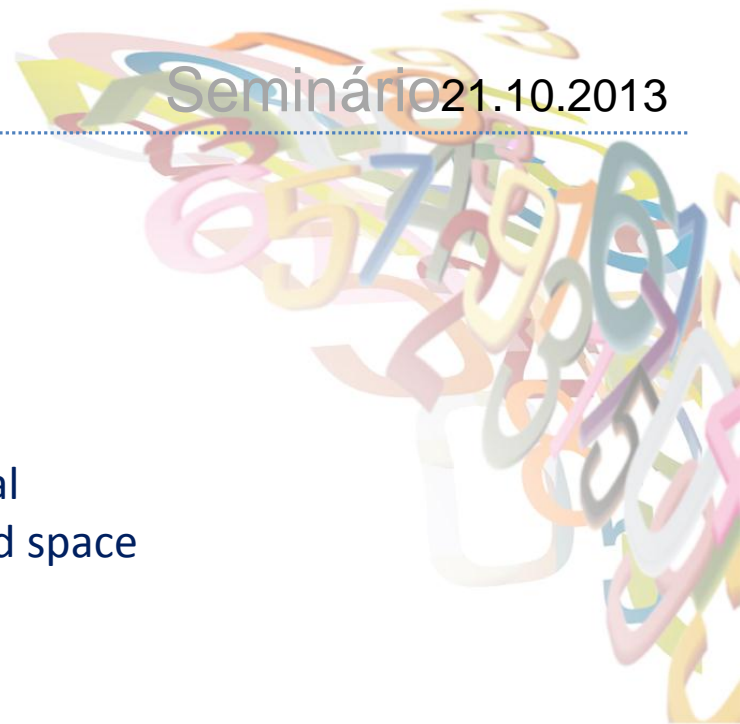
traditional view

- to understand the reality in its complexity
- to separate the essential from the non-essential
- to make meaningful comparisons over time and space
- to identify and examine correlations....

as an **input for decisions**

- to create awareness for an issue
- to quantify impacts
- to identify indicators and set targets
- to monitor the implementation of "contracts"
- to ensure mutual trust (compliance with decisions)

to replace a political procedure through **an automatism** ??



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A centuries' old discipline for today's use

A changing environment (1)

Continuous pressure on increasing productivity and efficiency in order to meet new and emerging needs with reduced funds and reduced burden on respondents.

Globalisation: Phenomena which cannot be meaningfully measured within national boundaries.

Complexity: Required integration of statistics across topics (and sources).

Dynamics and volatility: Techno-social-economic-environmental developments challenge response time.

Evidence based decision making: Might create unrealistic quality expectations and lead to feed-back-loops („Goodhart’s Law“).

A changing environment (2)

Challenges....

Response burden: Response rates are declining and the response burden will need to be limited.

Cost: Low cost of data storage vs. high costs of survey processes; increasing unwillingness of societies to pay for the infrastructure of statistics.

Ubiquity of information: Information societies need orientation, e.g. an authoritative stamp to signal the quality of the various data sets and the institutional environment in which they have been produced.

Competition: Official Statistics cannot further claim to represent a monopoly. Rather, it will need to compete with a range of other data providers who are able to use the same open data sources.

A changing environment (3)

....and opportunities

Data mining: through social networking, geo-referencing, (mobile) telecommunications, the use of internet.

Exploitation of new data sources' potential for replacing existing surveys (e.g. in the area of tourism statistics based on mobile phone roaming data) or supplementing them with different or more timely information suppliers (e.g. crises observatories to detect economic instabilities).

Nomenclatures (produced as conventions and revised only very rarely) might need a complementary approach by using "**emerging classifications**".

Statistics – some quotations

"Oh, people can come up with statistics to prove anything. 40% of people know that" - Homer Simpson

"Do not put your faith in what statistics say until you have carefully considered what they do not say" - W. W. Watt

"The most important things cannot be measured" - W. E. Deming

"Any observed statistical regularity will tend to collapse once pressure is placed upon it for control purposes" - Charles Goodhart

"If it matters, measure it" - Fraser Institute

> (If you measure it, it matters) or (If you don't measure it, it doesn't matter)?

Para que servem as

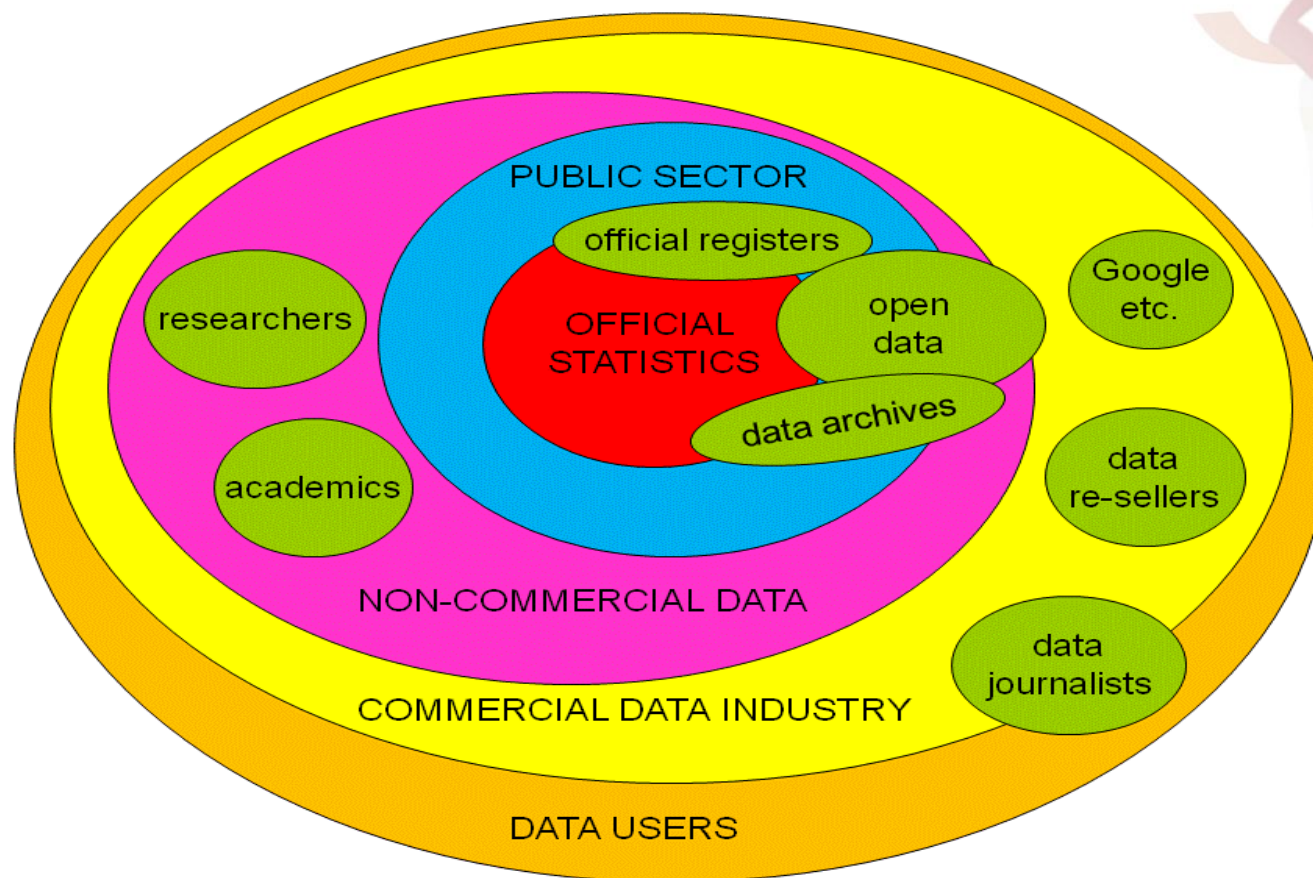
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Official statistics, a special business

Official statistics in the information industry



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What are official statistics ?

- Statistics closely linked to the sciences of the 'state;
- Embedded in an institutional setting at national level, at EU level;
- Robust and reliable, responding to quality principles;
- Trust, trust, trust...

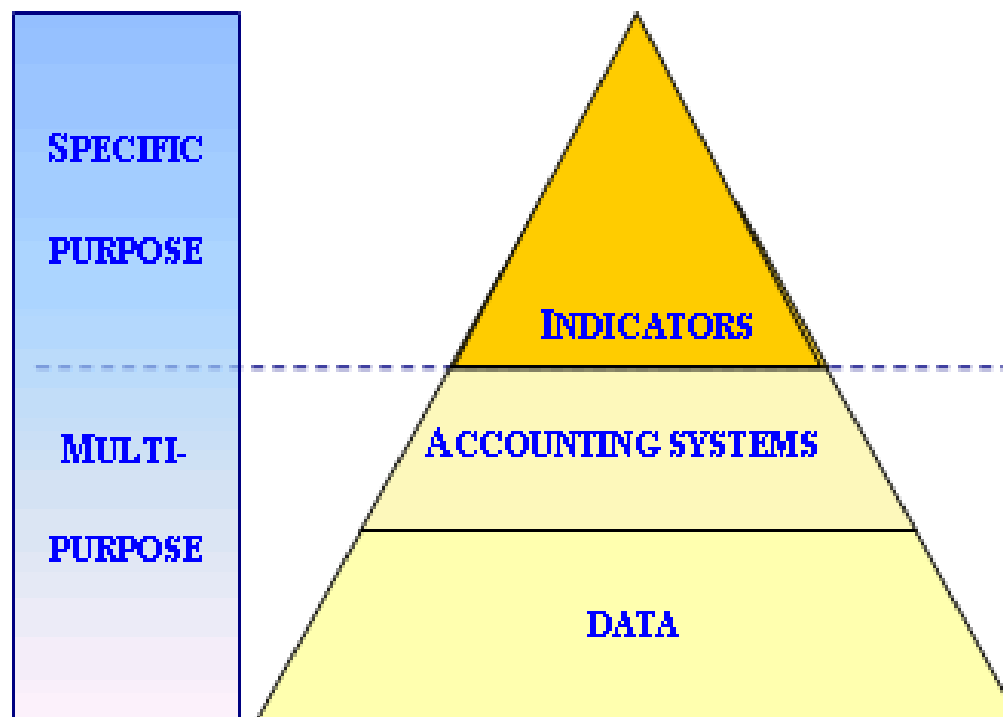


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Different components of official statistics



Limits of official statistics



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What is the official statistics industry ?

From small scale factories to a large scale industry

"Multiple Sources-Integrated Warehouse-Multiple Purpose-Design"

Building blocks of a new business model:

- **Products and services:** From tailor made products and specialised services to a one size fits all approach;
- Processes standardisation;
- Vertical integration, network of data-centres, statistical "Cloud";
- **Governance:** from organisations to co-operations;
- **Staff:** from process managers to solution providers: from data quality guardian to warehouse quality guardian;
- **Relationship with data providers:** from respondents to data providers;
- **Relationship with users:** from users to "pro-users".

European Statistical System (ESS)

=


Eurostat + all statistical authorities

in the 28 Member States and in EFTA (NO, SW, LI, IS)

is the Commission's Directorate-General on statistics

Quality and independence guaranteed by regulations

Official statistics in the EU

European statistics legislation	European Statistics Code of Practice
<ul style="list-style-type: none">• European Statistics Regulation - basis• European Statistical Programme• Commission Decision on the role of Eurostat	<ul style="list-style-type: none">• 15 principles - QUALITY 

European statistics in Impact Assessment (IA)

Commission guidelines – quote:

"Good quality data – facts as well as figures – are an essential part of any IA.

You need them to define the problem and the baseline scenario, and to identify the impacts of alternative options for dealing with the problem.

Particular attention needs to be paid to quality and credibility of data..."

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...but with limitations

Contribution of official statistics:

- In describing the nature and scaling of the problem and its past evolution over time and place;
- In proposing monitoring procedures/dashboards

But limitations of official statistics:

- In cost/benefit analysis: calculating benefits in monetary terms is impossible when there is no price on the market (i.e. the benefit of a forest or of being in good health).

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European statistics in EU policy monitoring

Basic statistics – Accounting systems (NA, EEA)

Indicators (MIP, EDP) – Dashboards (EU Sustainable Development)

Targets – Scoreboards (Europe 2020)

= Use of official statistics – quality certification – TRUST

Modelling

Estimations

Assumptions (TEEB)

= Experimental, outside scope of official statistics

Indicator sets for EU policies - overview

2001, 2006:	EU Sustainable development strategy	SDIs
2008:	Upcoming financial crisis	Financial indicators+
2009:	GDP and beyond - Roadmap for measuring	Additional indicators
2010: 2013:	Europe 2020 strategy, European Semester Strengthening the social dimension of the EU	Europe 2020 indicators Employment and social indicators

Europe 2020 indicators

+

(Employment and social indicators)

Financial indicators

+

Additional indicators

European Semester

European statistics and the financial and economic crisis

The crisis has increased the demand for both:

- financial statistics

in particular, on monetary and public finance issues

and

- non-financial statistics

such as on growth-related issues: Europe 2020 indicators.

Key indicators under the European Semester

- Macro-economic Imbalances Procedure (MIP):
 - scoreboard of 11 indicators set up by EU regulation (2011) and serving as an early-warning signalling device;
- Principal European Economic Indicators (PEEIs):
 - scoreboard of quarterly data on about 20 selected indicators;
- Employment and social indicators' scoreboard:
 - with five headline indicators proposed by the Commission on 2 October 2013 in its communication on 'Strengthening the social dimension of the EU'

All data are available on Eurostat's website

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Scoreboards

Scoreboard	Preseason	Scoreboard	Thu, Oct 18	Standings	
	Thursday, Aug 14	TB BOS 1 4	Final	NYI WAS 5 2	Final
JAC GB 21 13	Final	NYR ATL 2 5	3rd, 2:06	NJ PHI 0 4	3rd, 1:31
	Friday, Aug 15	MON OTT 2 3	3rd, 14:17	FLA TOR 2 2	3rd, 16:15
TEN BUF 28 17	Final	LA CGY			
STL OAK 10 20	Final	DET SJ			
	Saturday, Aug 16				
DET IND 3 27	3rd, 1:10				
BAL WAS 0 0					
NYJ NYG 6 5					
MIN SEA 0 3					
SD ARI					
PHI PIT					

Scoreboard	Standings
Northwest Division	W L PCT GB
Denver Nuggets	8 4 0.667 0.0
Utah Jazz	8 4 0.667 0.0

Scoreboard	Fri, Nov 23	Standings	
	Final	CHA ORL 92 105	Final
	3:59	HOU MIA 60 61	3rd, 8:02
	6:58	DAL IND 64 74	3rd, 6:55
	halftime	MIN DEN 24 22	2nd, 11:41
	0:01	LAC PHX 27 22	End of 1st
	00 PM	NJN SEA	7:30 PM

Scoreboard	May 29	Standings	
ARI PHI 5 3	▲8	CLE BOS 2 4	▲9
LAD WSH 10 0	F	SD PIT 1 4	F
NYN TOR 2 3	▲9	DET TB 12 2	▼8
SF NYM 3 3	▲10	ATL MIL 3 3	▲6
CIN HOU 1 1	▲6	FLA CHC 5 2	▲6
BAL KC 3 2	▲5	CWS MIN 1 6	▼5
STL COL 0 1	▼3	SEA LAA	Warmup
TEX OAK	7:05 PM		

Europe2020: example of a scoreboard with targets

Smart growth: developing an economy based on knowledge and innovation:

- Raise to 75 % the **employment rate** for women and men aged 20-64;
- Raise combined **public and private investment in R&D** to 3 % of GDP;
- Reduce **school-dropout rates** to less than 10 %;
- Increase the share of 30-34 years old having **completed tertiary or equivalent education** to at least 40 %.

Sustainable growth: promoting a more resource efficient, greener and more competitive economy:

- Reduce **greenhouse gas emissions** by 20 % compared to 1990 levels;
- Increase the **share of renewables** in final energy consumption to 20 %;
- Move towards a 20 % increase in **energy efficiency**

Inclusive growth: fostering a high-employment economy delivering social and territorial cohesion:

- Lift at least 20 million people out of **the risk of poverty or social exclusion**.

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Headline indicators - Microsoft Internet Explorer provided by European Commission

http://epp.eurostat.ec.europa.eu/portal/page/portal/europe_2020_indicators/headline_indicators

File Edit View Favorites Tools Help

Headline indicators

Headline targets	Indicators	Data	Quality Profiles (QP)
75 % of the population aged 20-64 should be employed	Employment rate by gender, age group 20-64		QP ✓
3% of the EU's GDP should be invested in R&D	Gross domestic expenditure on R&D (GERD)		QP ✓
Reduction of the greenhouse gas emissions by 20% compared to 1990	Greenhouse gas emissions, base year 1990		QP ✓
Increase in the share of renewable energy sources in final energy consumption to 20%	Share of renewables in gross final energy consumption		QP ✓
20% increase in energy efficiency	Energy intensity of the economy (proxy indicator for Energy savings, which is under development)		QP ✓
The share of early school leavers should be under 10% and at least 40% of 30-34 years old should have completed a tertiary or equivalent education	Early leavers from education and training by gender		QP ✓
	Tertiary educational attainment by gender, age group 30-34		QP ✓
Reduction of poverty by aiming to lift at least 20 million people out of the risk of poverty or exclusion	People at risk of poverty or social exclusion (union of the three sub-indicators below)		QP ✓
	People living in households with very low work intensity		QP ✓
	People at-risk-of-poverty after social transfers		QP ✓
	Severely materially deprived people		QP ✓

Quality Links

Lisbon Indicators (Structural Indicators)

Links

Europe 2020: A strategy for smart, sustainable and inclusive growth

Last update 29.09.2011

start | Inbox - Micr... | Microsoft A... | 2 Window... | Maastrich | GDP&Beyond | Capek_ST522 | http://epp... | Headline ind... | Microsoft E... | FR | 15:50

Publication of Europe2020 headline indicators

- EC - Europe2020 website: EU and national targets;
- Eurostat website: progress towards the targets

http://epp.eurostat.ec.europa.eu/portal/page/portal/europe_2020_indicators/headline_indicators

- Eurostat 2013 Flagship Publication (in print)

'Smarter, greener, more inclusive? – Indicators to support the Europe 2020 strategy'

EU Sustainable Development Strategy (SDS)

- **Policy:** EU Sustainable Development Strategy, follow up of Rio+20 (green growth, poverty eradication, institutional framework for sustainable development);
- **Theory:** Stiglitz-Sen-Fittousi Report, GDP and beyond, Brundtland report, environmental research, social research,...
- EU Sustainable Development Indicators (**SDIs**):
more than 100 indicators, structure in line with the elements of the policy (10 themes of EU SDS), with headline indicators identified per theme.

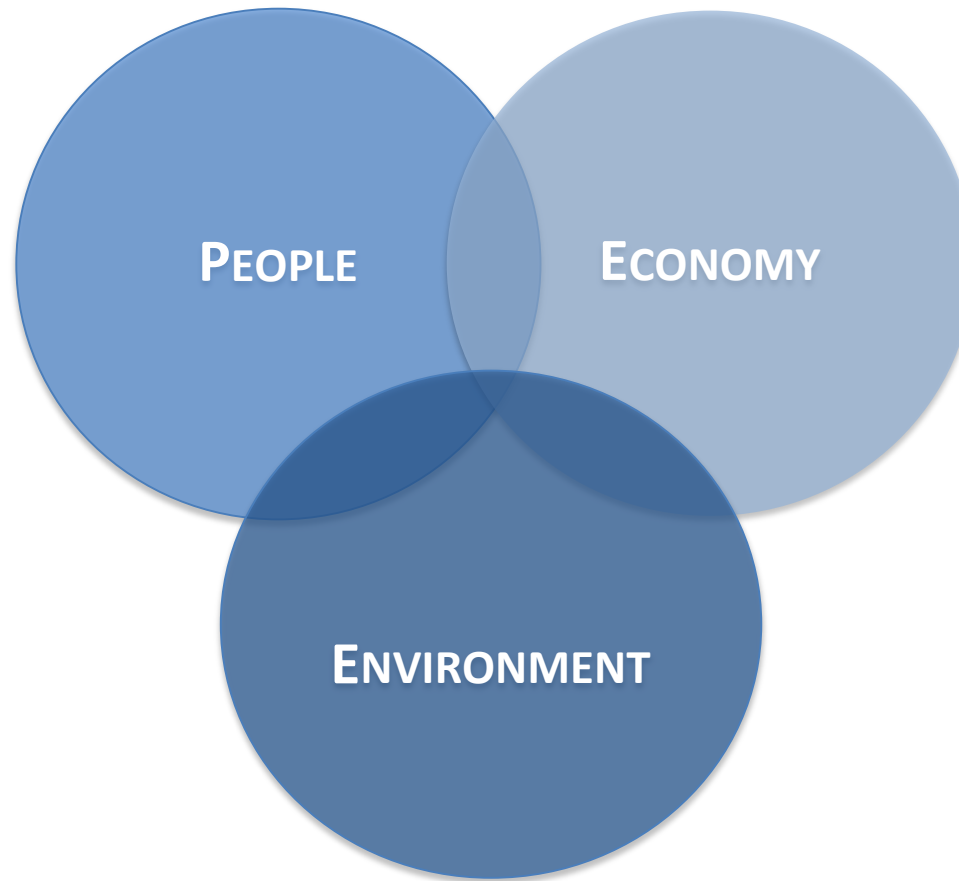
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EU Sustainable Development strategy

Now



Later

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Dashboard

From



To



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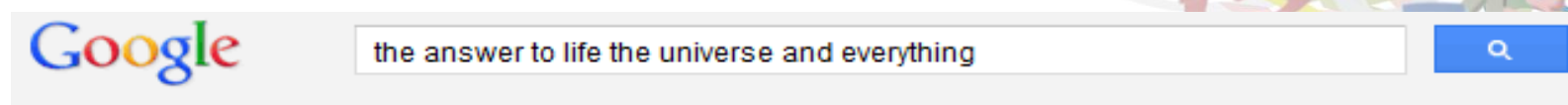
Publication of EU Sustainable Development Indicators

- Eurostat website:
<http://epp.eurostat.ec.europa.eu/portal/page/portal/sdi/indicators>
and **Statistics Explained**;
- Eurostat biennial publications
'**Sustainable Development in the EU**' - reports of 2007, 2009 and 2011
(2013 edition in preparation);
- Eurostat publication '**Figures for the future**' (2011).

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[42 \(number\) - Wikipedia, the free encyclopedia](#)

[en.wikipedia.org/wiki/42_\(number\)](http://en.wikipedia.org/wiki/42_(number))

42 is the result given by the web search engines Google and Wolfram Alpha when the query "**the answer to life the universe and everything**" is entered as a ...

[Mathematics - Science - Technology - Astronomy](#)

[Phrases from The Hitchhiker's Guide to the Galaxy - Wikipedia, the ...](#)

en.wikipedia.org/.../Phrases_from_The_Hitchhiker's_Guide_to_the_...

1 **Answer** to the Ultimate Question of **Life, the Universe, and Everything** (42).

1.1 The number 42; 1.2 42 Puzzle; 1.3 On the Internet; 1.4 Cultural references ...

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Paul Laffoley, zoomable images, The Solitron



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<http://epp.eurostat.ec.europa.eu/>