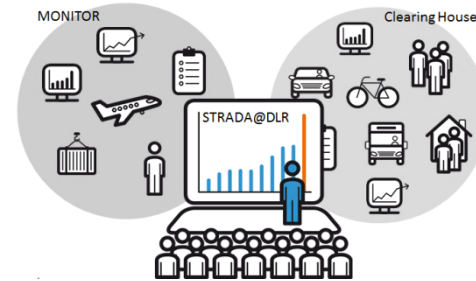


STRADA @ DLR



Using Dublin Core Standard for the Metadata Description of Transport Statistics – Practical Experience from a Project Dedicated to the Set-Up of an Interlinked Statistics Portal

Dublin Core Conference 2013, Lisbon, September 2013

René Kelpin, DLR
Institute of Transport Research

Knowledge for Tomorrow

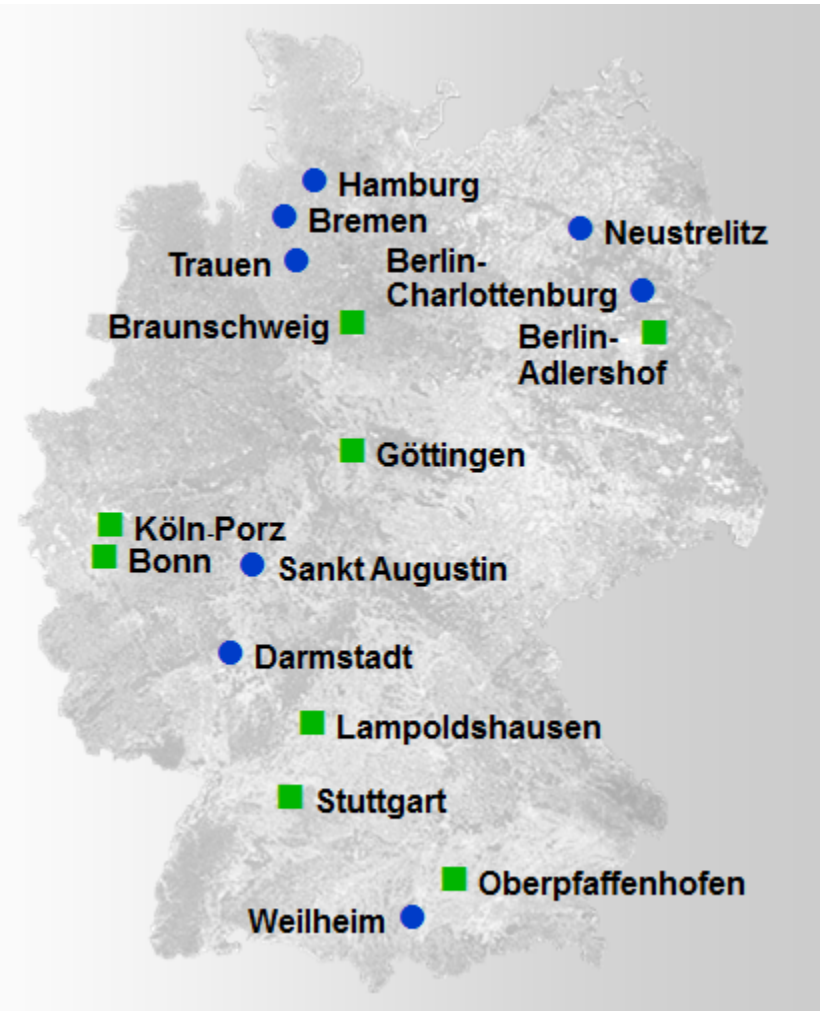


The German Aerospace Center DLR

7.000 employees working
in 27 research institutes and
facilities

- at 8 sites
- in 8 field offices.

Offices in Brussels,
Paris and Washington.



The German Aerospace Center DLR



Research branches

- Aviation
- Space
- Transport
 - Institute of Transport Research, Berlin; Head: Prof. Lenz
 - Institute of Air Transport and Airport Research, Cologne; Head: Prof. Reichmuth
- Energy
- Security



Two DLR transport data portals – One search engine

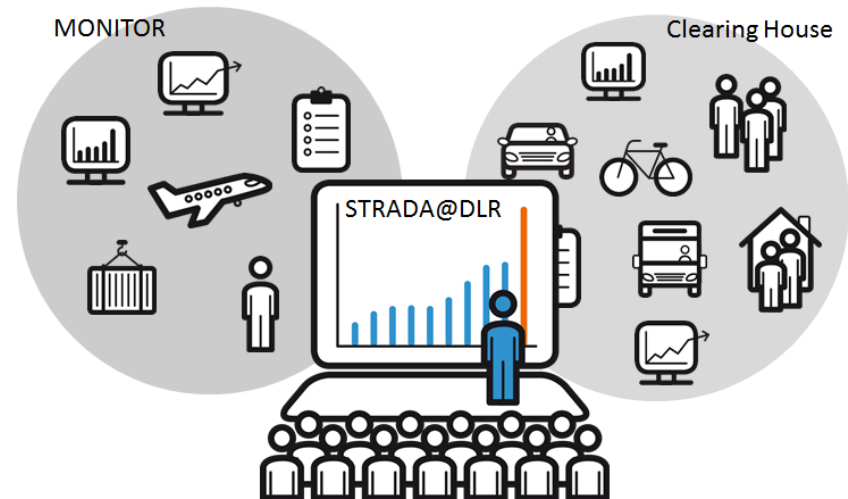
STRADA@DLR Search Transport Data at DLR

→ Combining statistics of

MONITOR
data base on air transport

&

Clearing House Mobility
data base on transport & mobility



The MONITOR portal was developed within an EU founded project

- **EU-funded pilot-study** within the 7th Framework Programme of the European Commission
- **Project partners:** DLR (D), NLR (NL), IIASA (A), University of St. Gallen (CH), Slot Consulting (H)

Project outcome

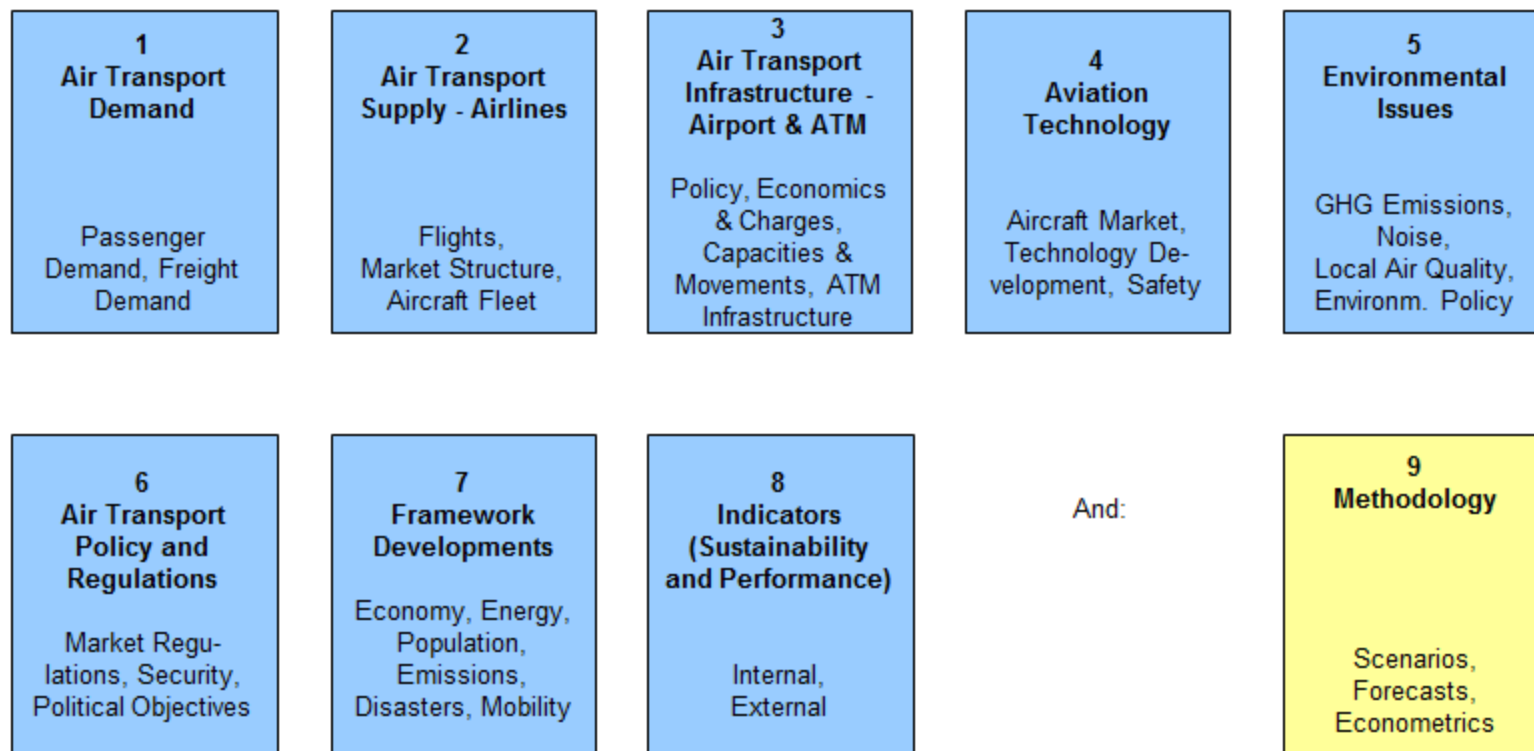
Monitoring System for the global and long-term air transport development with a focus on three pillars:

1. (Meta-) Database on important data sources
2. Indicators to describe important trends in air transport
3. Scenarios on future air transport perspectives

Publicly available website: www.airtransport-monitor.eu



Structure of the MONITOR (Meta-)Database



MONITOR: Metadata Scheme

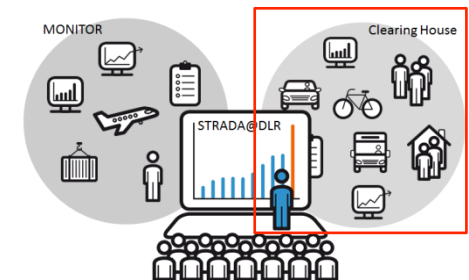
Element	DC/Terms	New	Element	DC	New
<i>Category Information</i>					
Resource type	type		Content category		☒
<i>Basic Information</i>					
Title	title		Subject/keywords	subject	
Publisher/supplier	publisher		Online link	relation	
Author	creator		Description	description	
<i>Technical Information</i>					
Spatial coverage	coverage		Temporal scope of publication	date	
Temporal coverage	coverage		Data status		☒
Time horizon		☒	Data format	format	
Temporal resolution		☒	Size of data file		☒
Variables		☒	Language	language	
Frequency of publication		☒	Resource identifier	identifier	
Date of release	date				
<i>Information for Using the Data (Usefulness, Possibilities and Limitations)</i>					
Availability	<u>available</u>		Target group		☒
Method of data collection/ processing		☒	Users of the data		☒
Collection reason		☒	Relation	relation	
Collection financier		☒	Alternative data sources		☒
Field(s) of application		☒	Possibilities and limitations of the data		☒



The Clearing House Transport & Mobility

Data Provider of official Mobility Statistics of German Ministry of Transportation since 2000

- Mobility in Germany
- German Mobility Panel
- Motor Vehicle Traffic in Germany
- ...



Spatial focus extended 2007:

(META) Information about European Household Mobility Statistics

Linked with European Transport Data Portals

Main ideas/approaches:

- “*Scientific Exchange*”
- “*Collect – Provide – **Connect** – Generate*”



DLR Clearingstelle für Verkehr

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Mobilitätsdaten bestellen
Beratung & Service
Linksammlung

Nationale Verkehrserhebungen

Listen Ansicht Karten Ansicht Favoriten Drucken

Exportieren als Dublin Core Export RSS 1.0 RSS 2.0

Datenkategorie (31)

- Mobilitäts-/ Verkehrsverhalten (23)
- Verkehrsträger (18)
- Verkehrszweck (16)
- Verkehrsmonitoring (3)
- Personenverkehr (24)
- Wirtschaftsverkehr (10)
- Verkehrsteilnehmer/ Zielgruppen (22)
- Mobilitäts-/ Verkehrsmanagement (4)
- Umweltwirkungen von Mobilität und Verkehr (10)
- Geodaten (8)
- Untersuchungen mit methodischem Fokus (2)

Anzahl der Einträge in dieser Kategorie: 0.

Diese Liste wurde erzeugt am **Fri Jan 18 04:00:19 2013 CET**.

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Mobilitätspanel Deutschland

Das Deutsche Mobilitätspanel sammelt seit 1994 jedes Jahr Informationen darüber, wann, wozu, mit welchem Verkehrsmittel die Menschen in Deutschland unterwegs sind. Zu diesem Zweck werden Haushalte zu ihrem Mobilitätsverhalten im Alltag befragt. Die Haushaltsmitglieder füllen ein Tagebuch aus, in dem sie alle ihre Wege im Verlauf einer Woche aufzeichnen. Mit dieser Information liefern sie einen wichtigen Beitrag zur sinnvollen Gestaltung der Verkehrs-systeme. Darüber hinaus werden im MOP alljährlich die Fahrleistungen mit Kraftfahrzeugen in Privathaushalten sowie die Kraftstoffverbräuche erhoben.

Allgemeine Informationen zum Datensatz
 Zeitliche & räumliche Informationen
 Untersuchungs- und Erhebungsmethodik
 Zugang zum Datensatz
 Administrative Informationen

Verfügbare Dateien

Format	Titel	Sprache	Lizenz	Datengröße	Datengriff
PDF	Laufende Statistik des Deutschen Mobilitätspanels 2002 - 2011	Deutsch	nicht angegeben	995Kb	Download
PDF	Deutsches Mobilitätspanel 2011/2012 - Teilbericht Alltagsmobilität 2011	Deutsch	nicht angegeben	4074Kb	Download
PDF	Deutsches Mobilitätspanel 2010/2011 - Schlussbericht	Deutsch	nicht angegeben	1672Kb	Download
PDF	Deutsches Mobilitätspanel 2009/2010 - Schlussbericht	Deutsch	nicht angegeben	1575Kb	Download
PDF	Deutsches Mobilitätspanel 2008/2009 -	Deutsch	nicht angegeben	1857Kb	Download

Tags

- Haushaltsbefragung, Mobilitätsverhalten, Wegetagebuch, Kraftfahrzeuge, Fahrleistung, Kraftstoffverbrauch,

Zugangsbedingungen

- BMVBS: Allgemeine Bedingungen zur Nutzung von Daten
- BMVBS: AGB zur Abgabe von Daten
- DLR: AGB für Lieferungen und Leistungen

Datensatz bestellen

Bestellformular

DLR Ansprechpartner

Rene Kelpin

Share / Save Facebook Twitter LinkedIn Google+

DLR Clearingstelle für Verkehr

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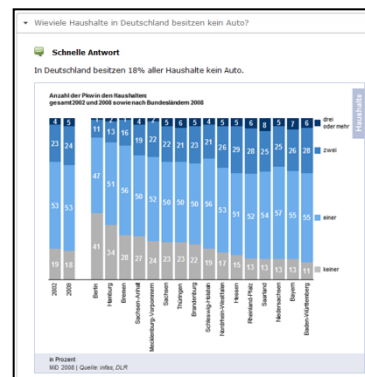
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Karten Ansicht

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Datenportale

Listen Ansicht Karten Ansicht Drucken

Exportieren als Dublin Core Export RSS 1.0 RSS 2.0

Räumlicher Fokus (14)

- Weltweit (4)
- Europa (4)
- EU (3)
- Land (8)
- Region (4)
- Stadt (3)
- Bezirk (1)
- Stadtviertel (1)

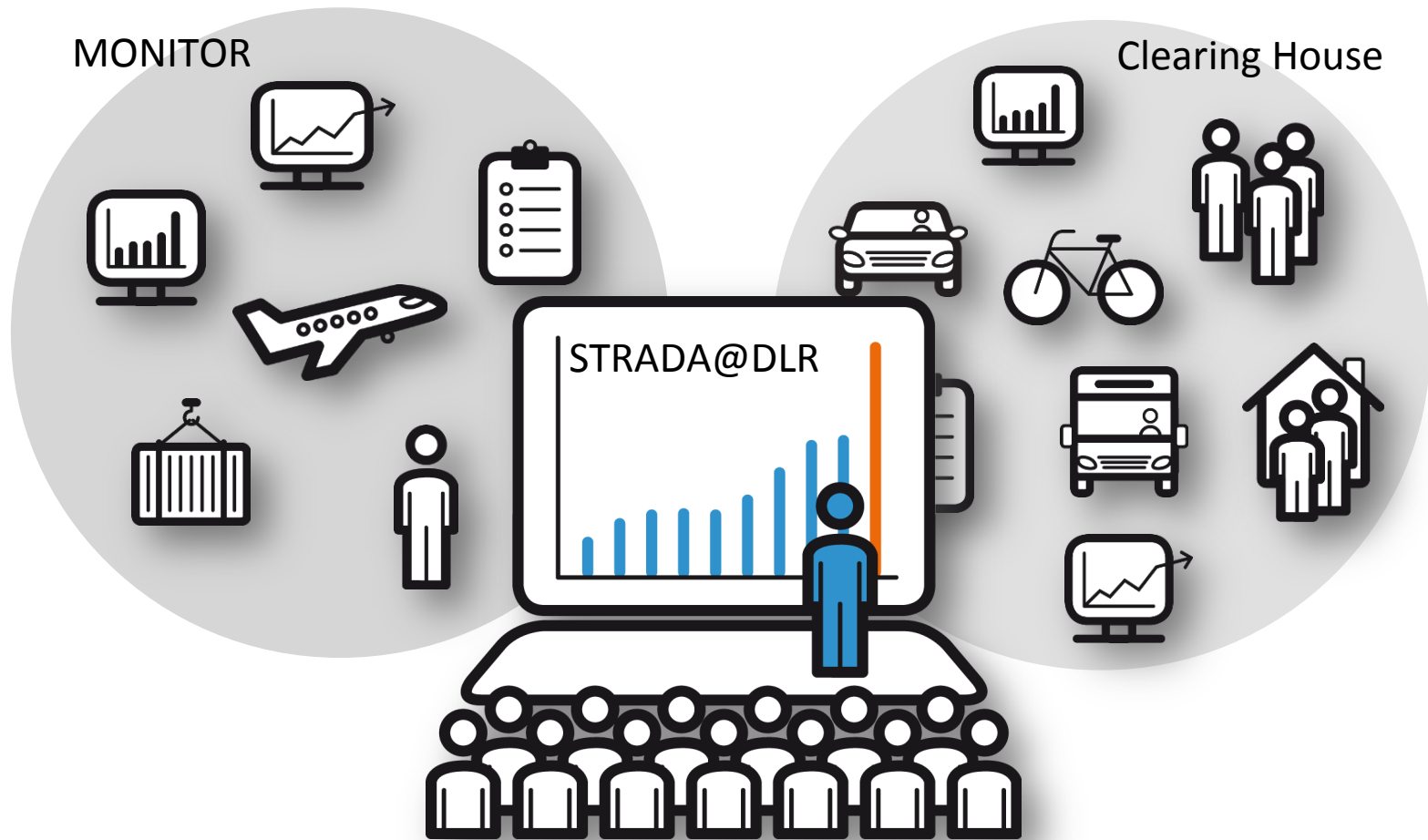
Diese Liste wurde erzeugt am **Fri Jan 18 04:00:06 2013 CET**.

Clearing House: Metadata Scheme

Element	DC/Terms	DDI	Element	DC/Terms	DDI
<i>General information on data set</i>					
Title	title	titl	Subjects	<u>tableOfContents</u>	topcClas
Title (abbreviation)		altTitl	Website for data set	relation	othrStdyMat
Summary, purpose of data collection	description	abstract	Possible links to other data sets	<u>references</u>	
Keywords	subject	keyword	Resource ID	identifier	
<i>Temporal and spatial information</i>					
Time period of data collection	<u>temporal</u>	timePrd	City, municipality	<u>spatial</u>	geogCover
Country	<u>spatial</u>	geogCover	Additional information		notes
Federal state	<u>spatial</u>	geogCover			
<i>Investigation and data collection methodology</i>					
Data set variables		dataDscr	Data collection tool		collMode
Investigation design		timeMeth	Population		universe
Frequency of data collection	<u>frequency</u>	frequenc	Analysis unit		anlysUnit
Data collection method		dataColl	Sample size		sampProc
<i>Access to data set</i>					
Collected by	contributor	data Collector	Data format(s)		fileType
Client	creator	authEnty	Size of data set		dimensns
Contact for data set	publisher	producer	General comments to data set		notes



STRADA@DLR: Search Transport Data @ DLR

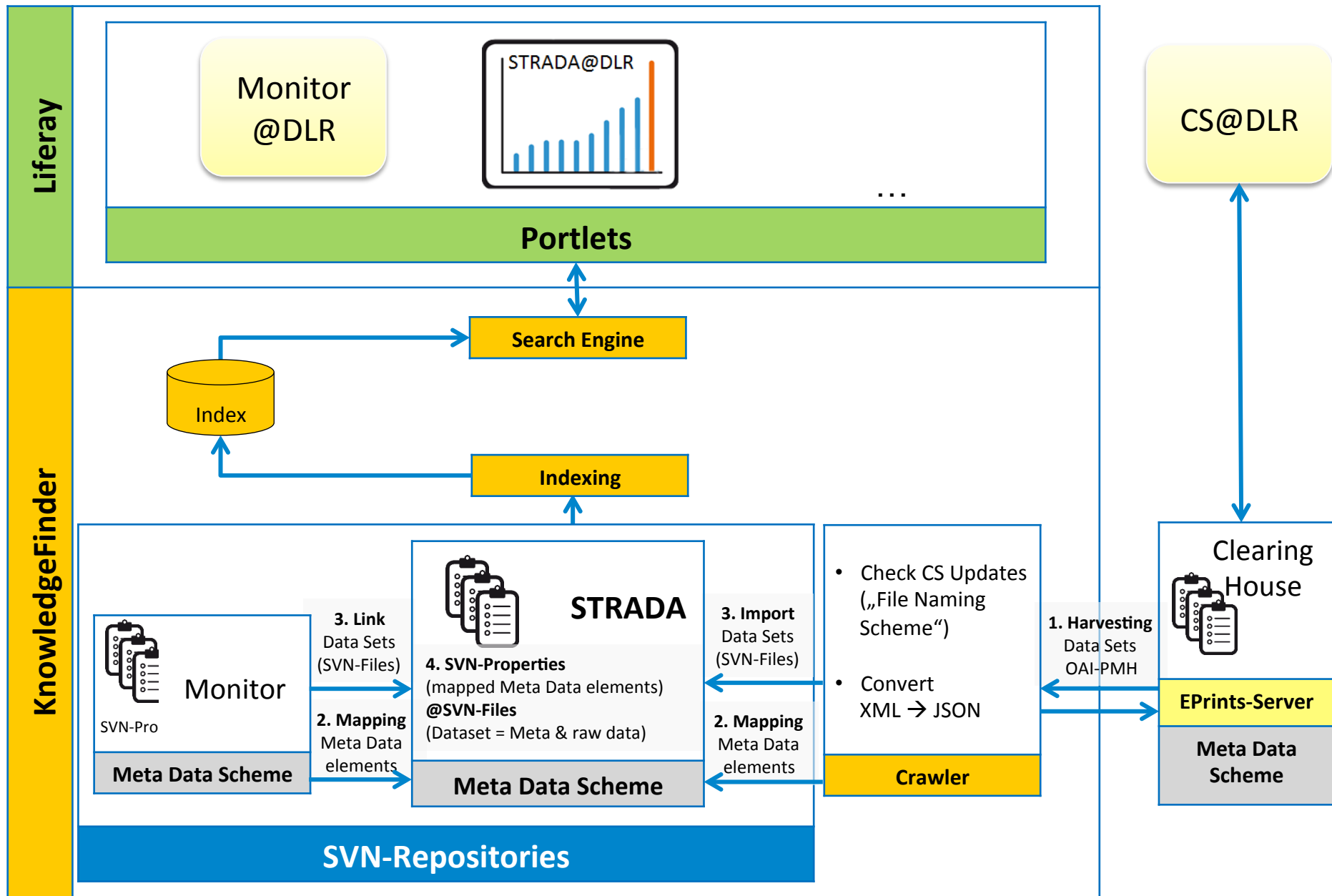


STRADA: Metadata Mapping

STRADA Metadata Element	Clearing House	Monitor	Search results teaser*	Search filter*	Metadata information sheet
Title	Title	Title	☑		☑
Publisher	Client	Publisher/supplier			☑
Author	Collected by	Author			☑
Subject/keywords	Keywords	Subject/keywords	☑		☑
Description	Summary, purpose of data collection	Description	☑		☑
Spatial coverage	Country / Federal State City / municipality	Spatial coverage		☑	☑
Frequency of publication	-/-	Frequency of publication			☑
Temporal coverage	Time period of data collection	Temporal coverage		☑	☑
Frequency of data collection	Frequency of data collection	-/-			☑
Time period of data collection	Time period of data collection	Temporal scope of publication			☑
Link	[determined]	[determined]			☑
Data category	Subjects	Content category		☑	☑

* First project phase implementation





Combined Search → STRADA@DLR Formats

Mobility-/Traffic behaviour			
→ Modal Split → Tri → Vi → Tir → Ac	Air Transport Demand		Environmental Issues
	STRADA categories	MONITOR categories	Clearing House categories
→ Passenger Transport → m → no → m	Framework and geographical Data	Framework Developments	Economy, Demography
	Passenger Transport	Passenger Demand	Passenger Transport, Transport Purpose, Mobility-/Traffic Behaviour
→ Traffic → W → Bu → Ed → Sh → Re → Hc	Commercial Transport	Freight Demand	Commercial Transport
	Traffic	Air Transport Supply (Airlines)	Traffic Volume, Mileage
→ Infrastructure → Transport Measures and Policy → Environmental Issues	Infrastructure	Air Transport Infrastructure (Airports and ATM)	Infrastructure, Capacity Loads
	Transport Measures and Policy	Air Transport Policy and Regulations	Mobility/Traffic, Management
→ Vehicle Technology → Tr → Mileage → Capacity Loads	Environmental Issues	Environmental Issues	Environmental Impact of Mobility and Traffic
	Vehicle Technology	Aviation Technology	
→ Aircraft Market → Safety → Technology Development		→ External → Internal	

STRADA@DLR

Clearing House

MONITOR



Conclusion and next steps

Connection of first two DLR data/statistics portals

→ Added value for DLR researchers

→ Combination of Air & Ground Transport

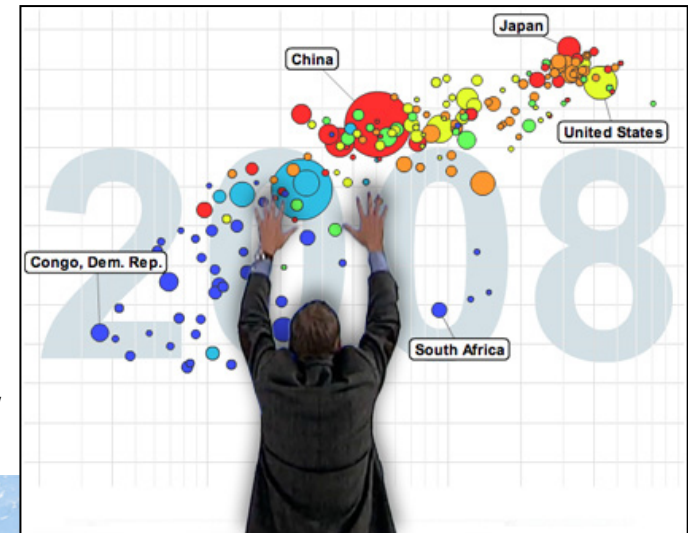
Second Project Phase – Future work:

Involvement of further (technical) DLR transport portals in preparation

→ Higher degree of complexity

Innovative data/info visualisation

→ *European Transport Gapminder*



Source: <http://www.gapminder.org/>



Thank you for your attention!

mail: rene.kelpin@dlr.de
web: <http://www.dlr.de/vf>



Clearingstelle
Verkehr

