



# CollectER III, a tool for emission inventorying and reporting

“Tinus Pulles





## Outline

Software system design and underlying rationale

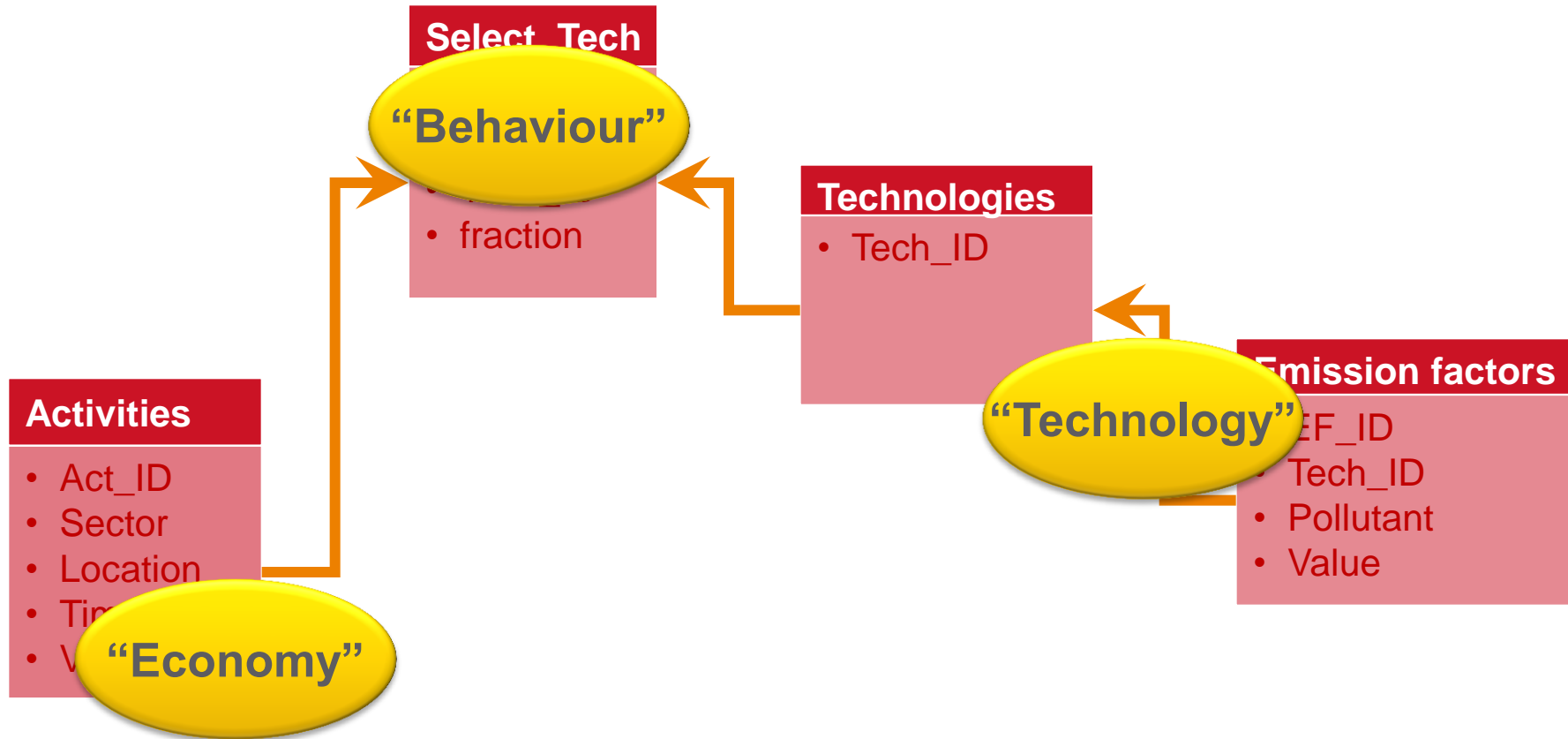
What has been changed

New and updated features of the software

***TrainER***

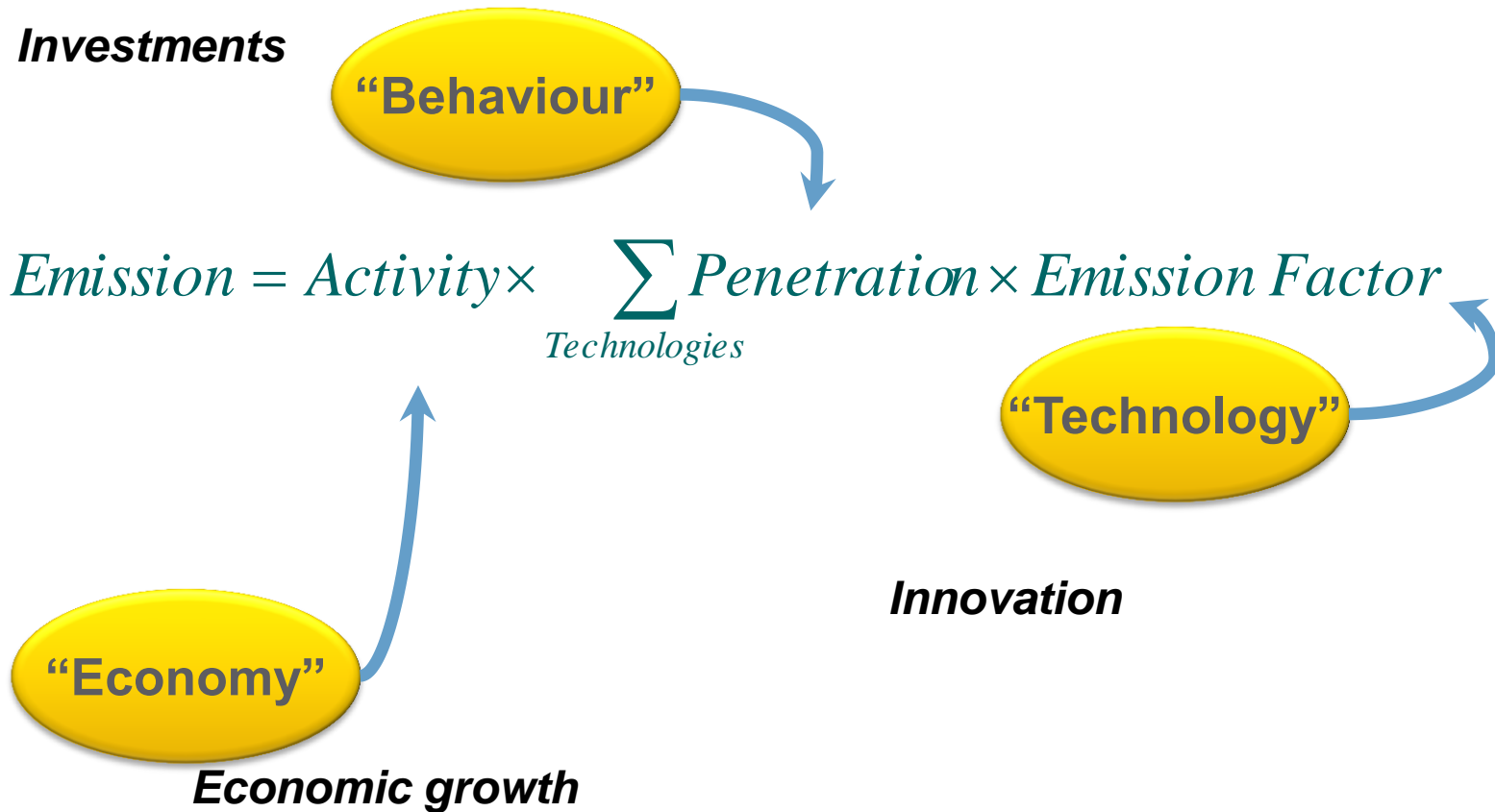


## Generalised database structure



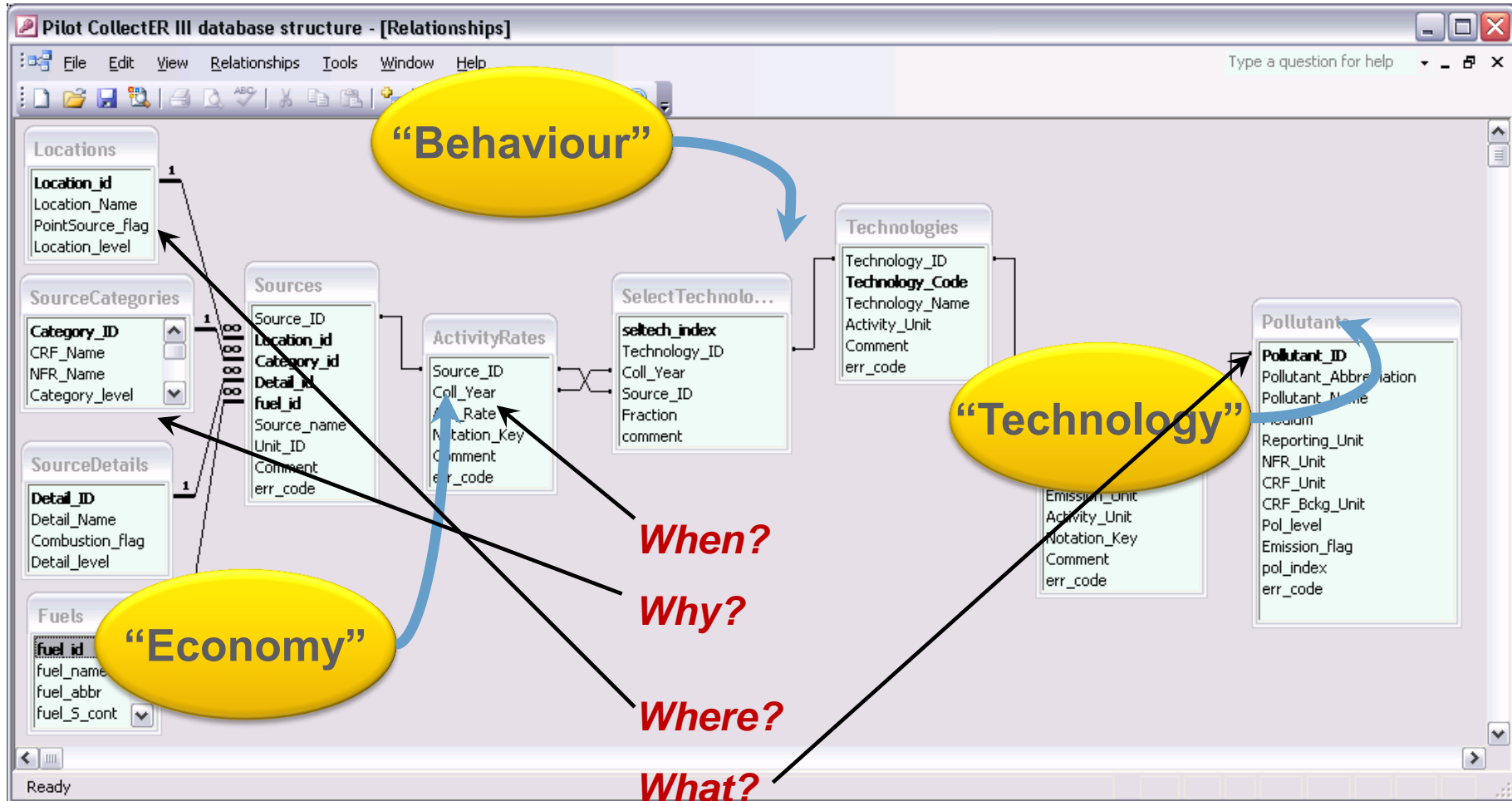


## Generalised database structure





# Database structure





# The interface

## Source filter:

- By location
- By source category
- By "SNAP"
- By fuel

## Sources matching filter

Allows selecting source(s)

## Activity data for selected sources

## Technologies and Emission Factors

**COLLECTER III - [Inventory]**

File Tools Root Data Reports View Administrate Help

**Source filter**

Locations Categories Details Fuels

Categories

- 0- (total national emissions and removals)
- 1- (total energy)
  - 1.A- (fuel combustion activities (sectoral)
    - 1.A.1- (energy industries)
      - 1.A.1.a-public electricity and heat
      - 1.A.1.b-petroleum refining (petrol)

**Activity rates** Graph

Source ID	Unit	2000	2001	2002	2003	2004	2005
155	GJ	28000000	32500000	29500000	30400000	36500000	345

**Source list** Emissions

sour	location_id	category_i	detail_i	fuel_id	fuel
178	MI_area	1.A.1.a	010103	301	natu
190	MI_area	1.A.1.a	010103	105	brow
185	MI_area	1.A.1.a	010103	103	sub
189	MI_point_E_2	1.A.1.a	010102	105	brow
155	MI_point_E_P1...	1.A.1.a	010101	103	sub
156	MI_point_E_P1...	1.A.1.a	010101	103	sub
157	MI_point_E_P1...	1.A.1.a	010101	103	sub
158	MI_point_E_P1...	1.A.1.a	010102	301	natu
182	MI_point_M_2_1	1.A.1.a	010101	103	sub
183	MI point M 2 2	1.A.1.a	010101	103	sub

**Selected technologies** Emission Factors

Year	Code	F	Pol. ID	Pol. Abbreviation	Em. Factor
2005	CoalPowerWetB...	1	02_M01	As	0.007
2004	CoalPowerWetB...	1	02_M02	Cd	0.0007
2003	CoalPowerWetB...	1	02_M03	Cr	0.004
2002	CoalPowerWetB...	1	02_M04	Cu	0.005
2001	CoalPowerWetB...	1	02_M05	Hg	0.002
2000	CoalPowerWetB...	1	02_M06	Ni	0.008
			02_M07	Pb	0.022
			02_M08	Se	0.000433
			02_M09	Zn	0.034

Selected sources: 1



# TrainER III

Self training document

- › Describes the basics of the system.
- › Provides step by step guidance
- › Explains bulk import

TrainER III page 1 of 62

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<b>TrainER III</b>	
<b>Compiling a National Emission Inventory using CollectER III</b>	
Authors	<i>Tinus Pulles</i>
Purpose of this document	This document provides a self training course in emission inventory compilation, using version III of the CollectER software tool, developed by ETC-ACC under the work programme of the European Environment Agency. The software and this document can be downloaded free of charge from ETC-ACC's web-site at <a href="http://ain.eclimatic.orst.europa.eu/country_tools/acc/CollectER_III.html">http://ain.eclimatic.orst.europa.eu/country_tools/acc/CollectER_III.html</a> .
Version	III.01
	This version of TrainER is a renewed write-up of an earlier version of the document. It now has been linked to the third generation of the CollectER / ReportER system: <i>CollectER III</i> .

**Contents**

TrainER III..... 1

Compiling a National Emission Inventory using *CollectER III*..... 1

Your TrainER for the *CollectER III* software tool..... 3

1 Introduction..... 4

1.1 Background and Objective..... 4

1.2 Legal framework..... 4

1.3 A bit of history: CORNAIR..... 5

2 Inventory structure..... 7

2.1 A general approach..... 7

2.2 Dimensions of the Inventory..... 9

2.3 Relational database..... 9

2.4 Data tables..... 12

2.5 Auxiliary tables..... 13

3 Building a national inventory using *CollectER III*..... 14

3.1 An example inventory for Middle Earth..... 14

3.2 Starting a new inventory..... 14

3.3 Data Entry..... 18

3.4 Starting a new inventory cycle..... 39

4 Reporting..... 40

4.1 Tools within CollectER III..... 40

4.2 Reporting to UNFCCC and EU MM..... 40

4.3 Reporting to LRTAP and NEC Directive..... 40

5 Import of data Using MS Office applications..... 41

5.1 Accessing the CollectER III database directly..... 41

5.2 Road transport..... 42

5.3 Public Power plants..... 54

6 References..... 62



# TrainER III

## Self training document

- › Uses an example inventory for “Middle Earth”
  - › Manual input
    - › Residential heating
    - › Manure management
    - › A large power plant
    - › An integrated steel works
  - › Bulk input
    - › Road transport
    - › Source category

### 1.A.1.a: Public Power Plants

TrainER III page 14 of 62  
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### 3 Building a national inventory using CollectER III

#### 3.1 An example inventory for Middle Earth

This chapter presents an example inventorying activity in a (non-existent) country called Middle Earth (see Figure 3-1). We take the geography of this country from the story by J.R.R. Tolkien, the Lord of the Rings. A limited number of activities is introduced in this inventory and in the course of this chapter updating these data and adding new sources will be demonstrated. Emission factors are taken from the revised EMEP/EEA Guidebook [1].




Figure 3-1 Map of Middle Earth from <http://fan.theonering.net/roloz/collection/baynes>

#### 3.2 Starting a new inventory

*Open a blank database*

To start a new inventory, open the *CollectER III* application. The application will open in a database that was open in an earlier session of *CollectER III*. In case of a new





# TrainER III

## Self training document

- Direct import into the MS Access database structure
- Assumes good knowledge of MS Access
- Uses advanced features of MS Excel

### WARNING

- Be sure to always make a back up of your **CollectER III** database before you start working directly in MS Access.
- Always check your import carefully in the **CollectER III** tool after you have made changes in the database and assure yourself that the changes are correctly interpreted by the tool and that the result **indeed is as intended.**

page 48 of 62

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the fuel code in the Excel table is seen by MS Access as a number, whereas the Sources table expects it to be a string. Therefore the MS Access function Str must be used. Since the Str function in MS Access adds a space before the number, the function Trim should be used on top of this.

The *Unit\_id* should be read from the *Units* table. The final two columns of the query ensure that this is indeed the case.

To see what has happened in the inventory, the new Source details and sources can be viewed in *CollectER III* by using the restore (menu item *File | Restore*) of the application. After restoring to the updated database, the *Details* tree should look like the screen dump below. The sources shown in the *Source list* will depend on the selection in the *Details* tree.



**Teşekkür Ederim**  
**Thank you**