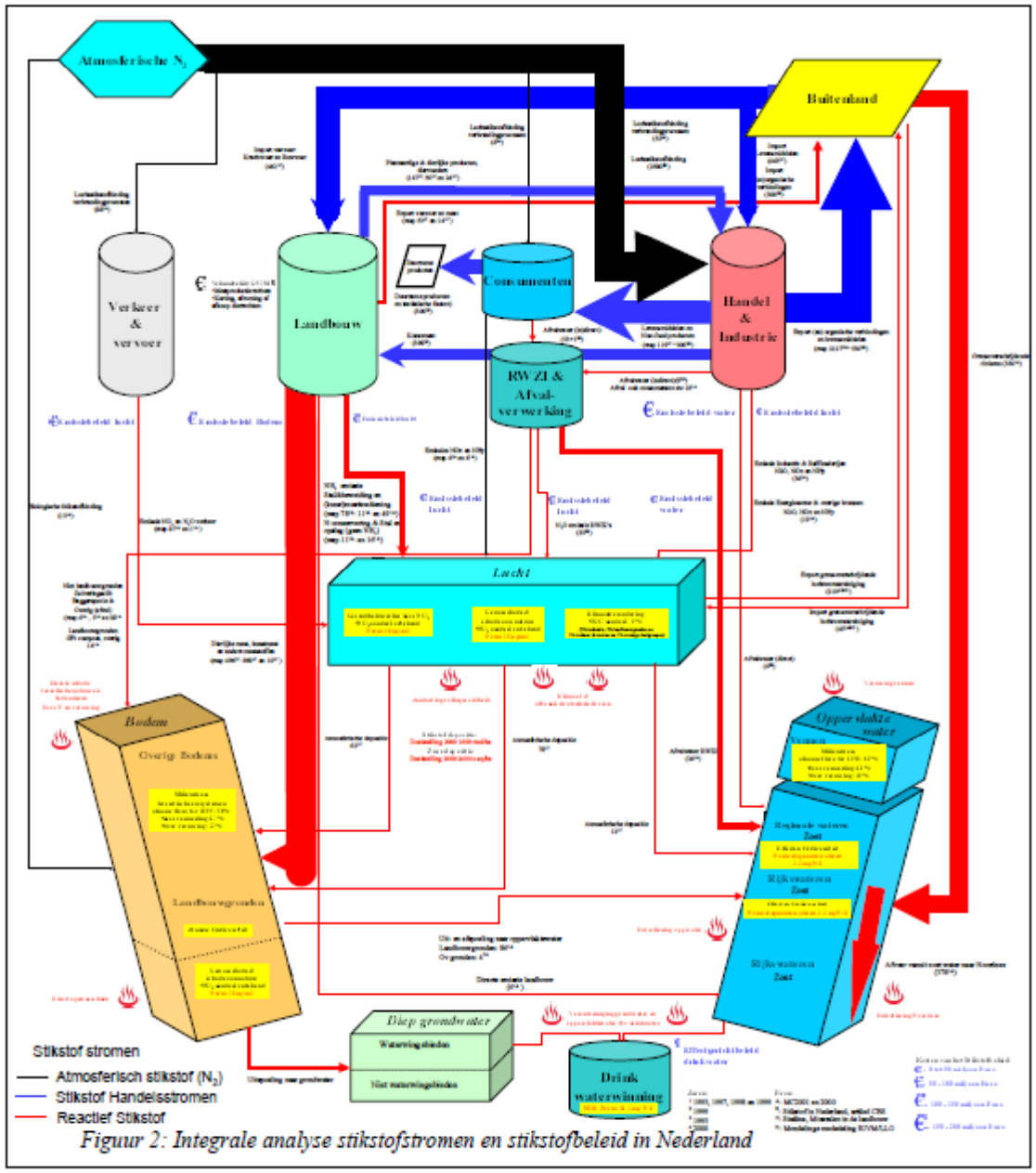
ECN

Energy research Centre of the Netherlands

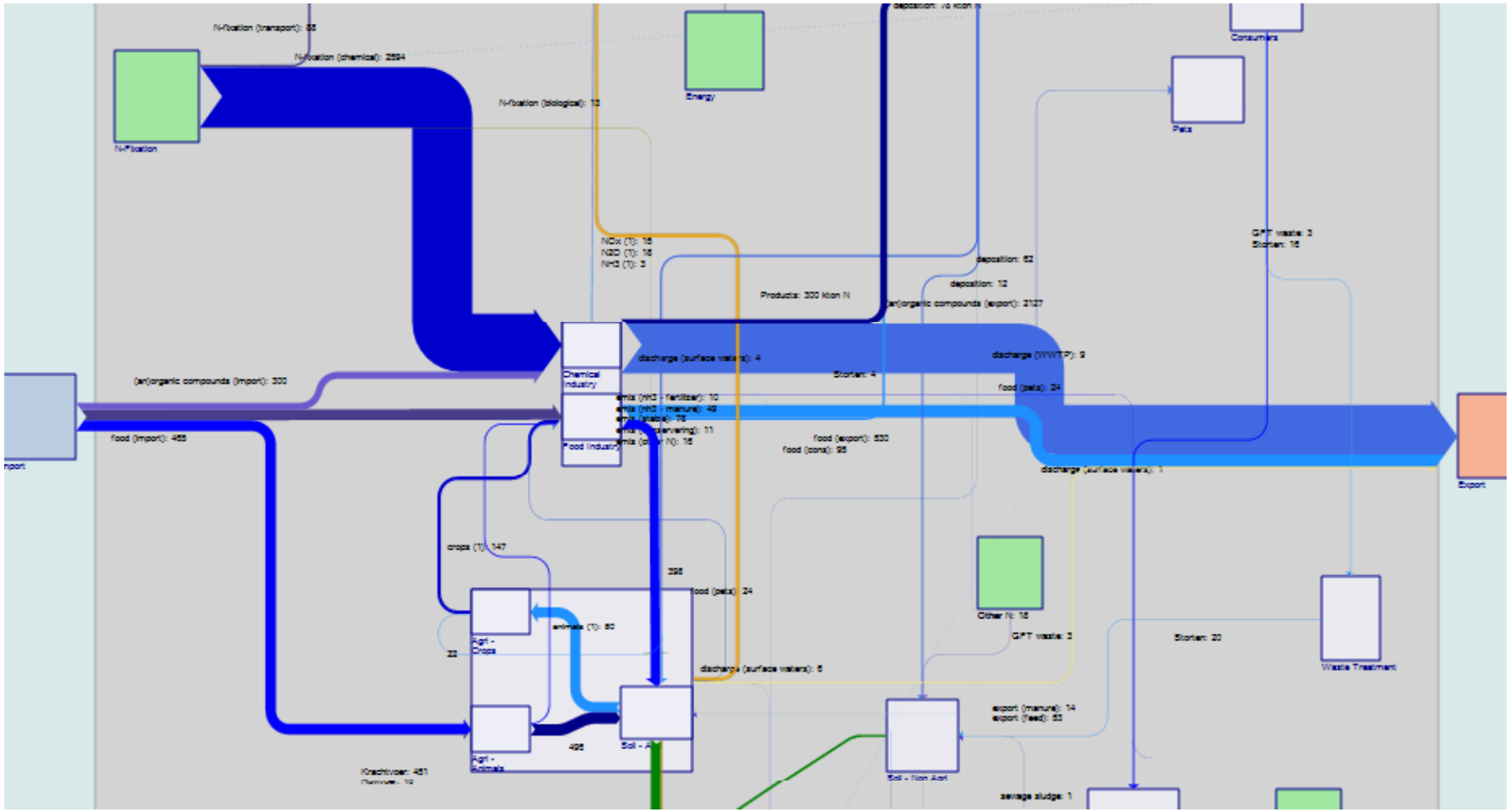
NL budget and need for structure

What did we have?

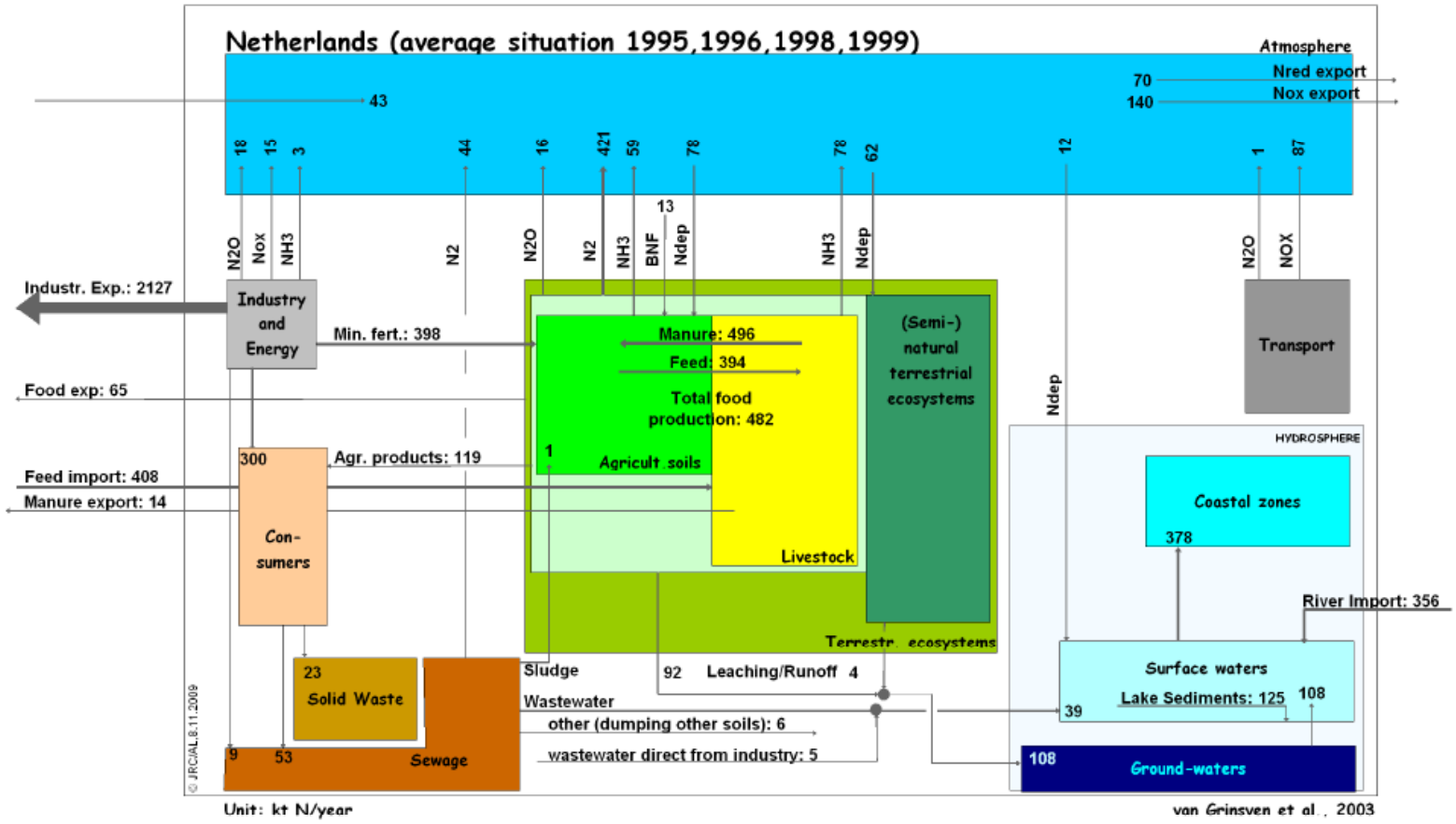


Figuur 2: Integrale analyse stikstofstromen en stikstofbeleid in Nederland

Another one


N-fixation (transport): 65
N-fixation (chemical): 2594
N-fixation (biological): 12
N-fixation
Energy
Consumers
Pets
NOx (t): 15
N2O (t): 16
NH3 (t): 3
Products: 300 kton N
deposition: 62
deposition: 12
(an)organic compounds (export): 2127
GFT waste: 3
Storten: 16
discharge (surface waters): 4
discharge (WWTP): 9
Storten: 4
food (pets): 24
(an)organic compounds (import): 300
Chemical industry
Food industry
emis (nh3 - fertilizer): 10
emis (nh3 - manure): 49
emis (nh3 - soil): 78
emis (nh3 - volatilisation/ervering): 11
emis (other N): 16
food (import): 465
food (export): 530
food (cons): 95
Export
discharge (surface waters): 1
crops (t): 147
396
food (pets): 24
animals (t): 80
Agri - Crops
22
discharge (surface waters): 6
Other N: 16
GFT waste: 3
Storten: 20
Waste Treatment
export (manure): 14
export (feed): 53
426
Soil - Ag
Agri - Animals
Soil - Non Agri
Krachtvoer: 451
sewage sludge: 1

There was ENA (& Adrian)



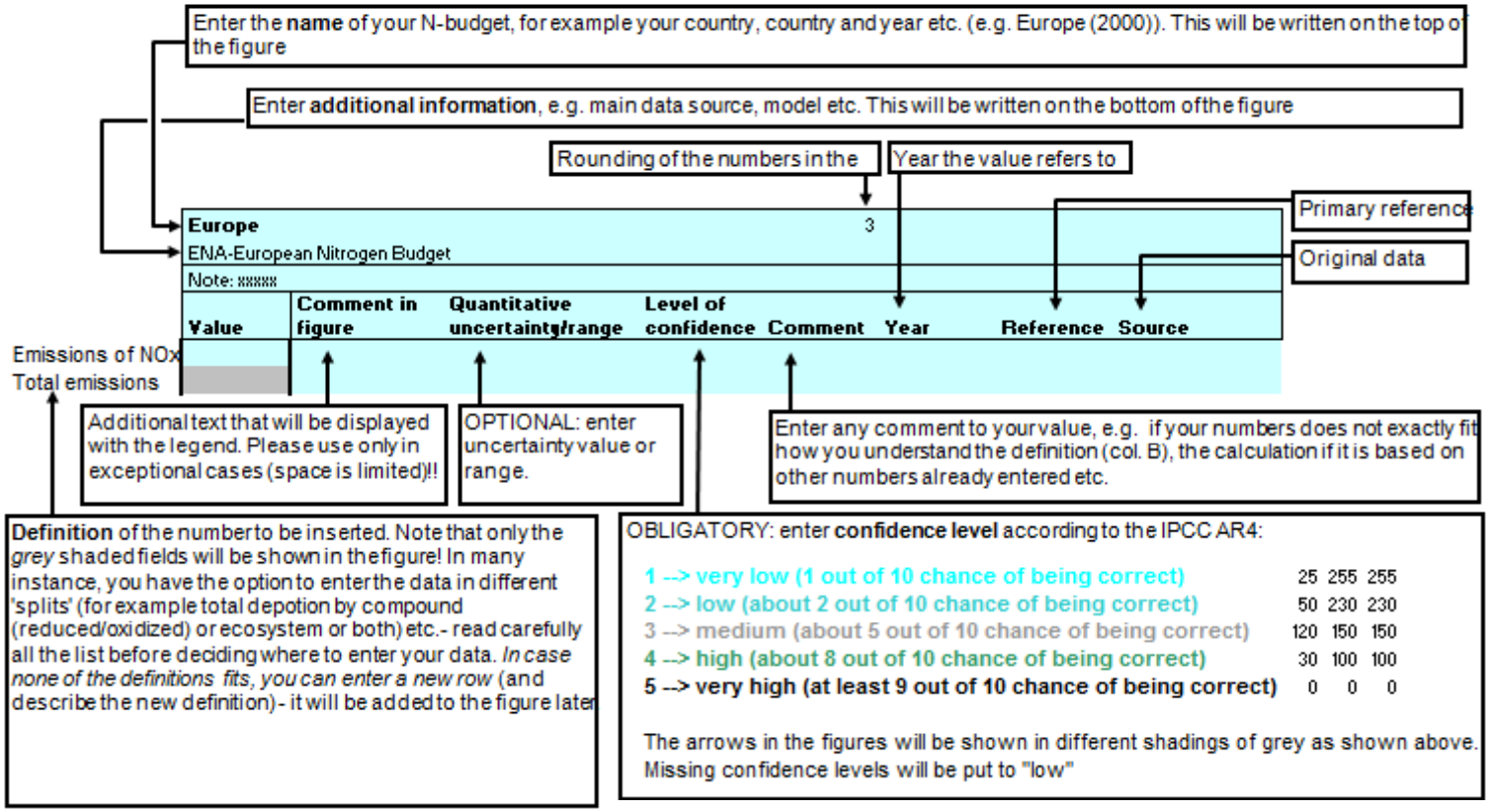
TEMPLATE FOR REGIONA/NATIONAL N-BUDGETS

Version 4, 2009-04-28

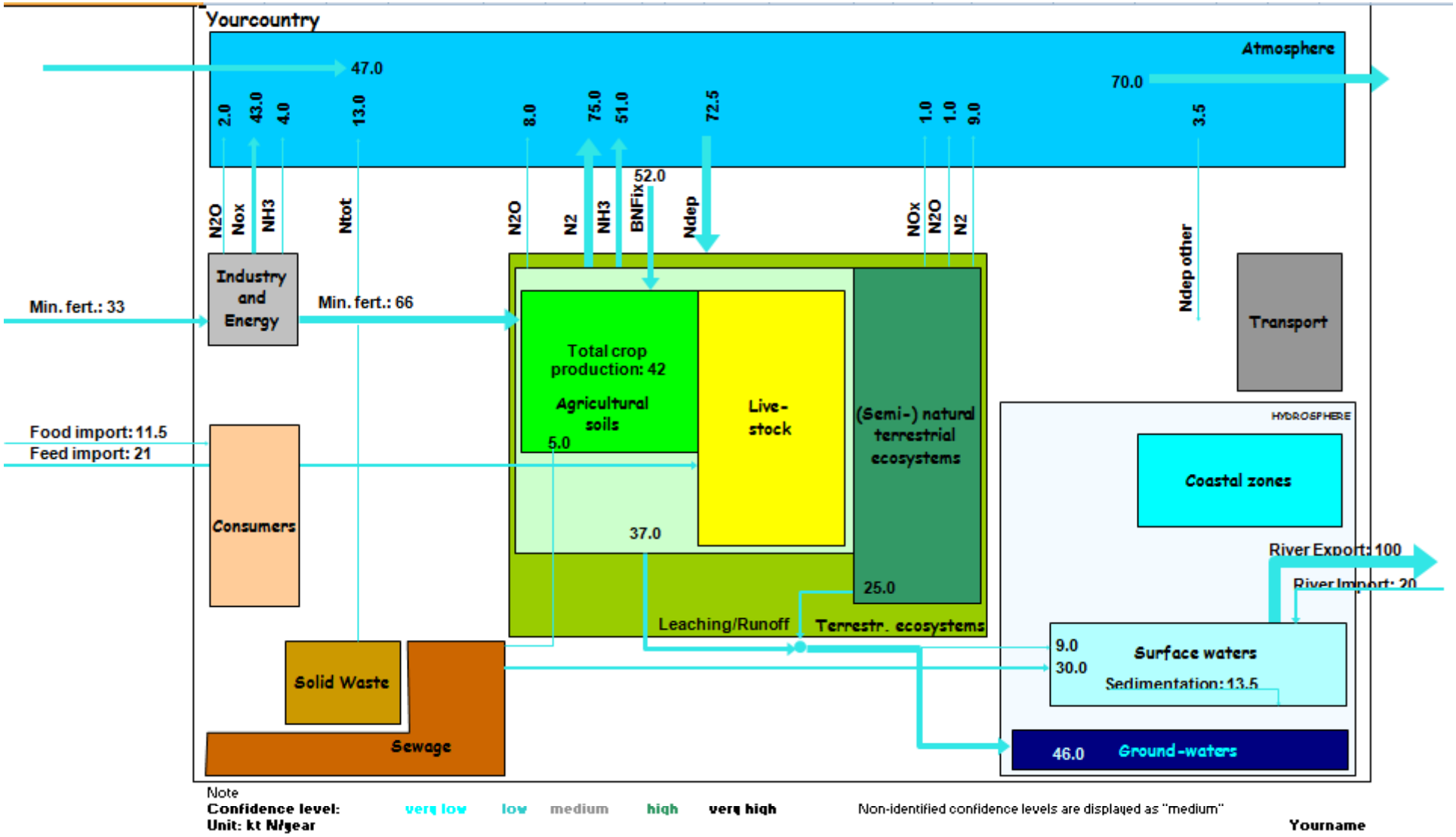
Adrian Leip <adrian.leip@jrc.ec.europa.eu>

Purpose: Compile data to construct national/regional nitrogen budgets

Sheet 'data' **Please enter information of your N-budget according to the example below**



		0	Yourcountry					3		
			Yourname							
			Note							
	See sheet "readme" for explanations!!		Value [kt N]	Comment in figure	Quantitative uncertainty/range	Level of confidence	Comment	Year	Reference	
	- Total deposition to coastal zones									
	- Deposition other									
	Hydrosphere									
Input	**Total diffuse input (leaching and run-off) to rivers/groundwater** (no denitrification, this number should be the sum of N losses from agriculture + terrestrial ecosystems)									
Split input	- Total diffuse input (agri+natural) to groundwater									
Split input	- Total diffuse input (agri+natural) to rivers									
	Total point input to rivers (sewage net of denitrification plus direct input below) + deposition to inland surface waters									
Input	- Direct discharge from industry households to rivers									
	' - Direct discharge from industry to rivers									
Input	- Direct discharge from households to rivers									
	- Outflow groundwater --> rivers									
Input	River import from other countries									
Output	River export to other countries									
Output	Sediments in lakes and/or estuaries									
	- Remaining (sedimentation)									
	- removed									
Output	Total denitrification surface water + groundwater									
	- Total N2 from rivers and groundwater									
	-- Emissions N2 from groundwater									
	-- Emissions N2 from rivers									
Output	Emissions N2									
	- Total N2O from rivers and groundwater									
	-- Emissions N2O from rivers									
	-- Emissions N2O from groundwater									
Output	*Alternative split of total denitrification*									
	- Total denitrification from groundwater									
	- Total denitrification from rivers									
	Coastal zone									
	Rivers/groundwater to coastal zone									


Yourcountry
Atmosphere
47.0
70.0
2.0
43.0
4.0
13.0
8.0
75.0
51.0
72.5
1.0
1.0
9.0
3.5
52.0
N2O
Nox
NH3
Ntot
N2O
N2
NH3
BNFix
Ndep
NOx
N2O
N2
Ndep other
Industry and Energy
Min. fert.: 33
Min. fert.: 66
Transport
Total crop production: 42
Agricultural soils
5.0
Live-stock
37.0
(Semi-) natural terrestrial ecosystems
25.0
Food import: 11.5
Feed import: 21
Consumers
HYDROSPHERE
Coastal zones
River Export: 100
River Import: 20
Leaching/Runoff
Terrestr. ecosystems
9.0
30.0
Surface waters
Sedimentation: 13.5
Solid Waste
Sewage
46.0
Ground-waters
Note
Confidence level:
very low
low
medium
high
very high
Non-identified confidence levels are displayed as "medium"
Unit: kt N/year
Yourname