

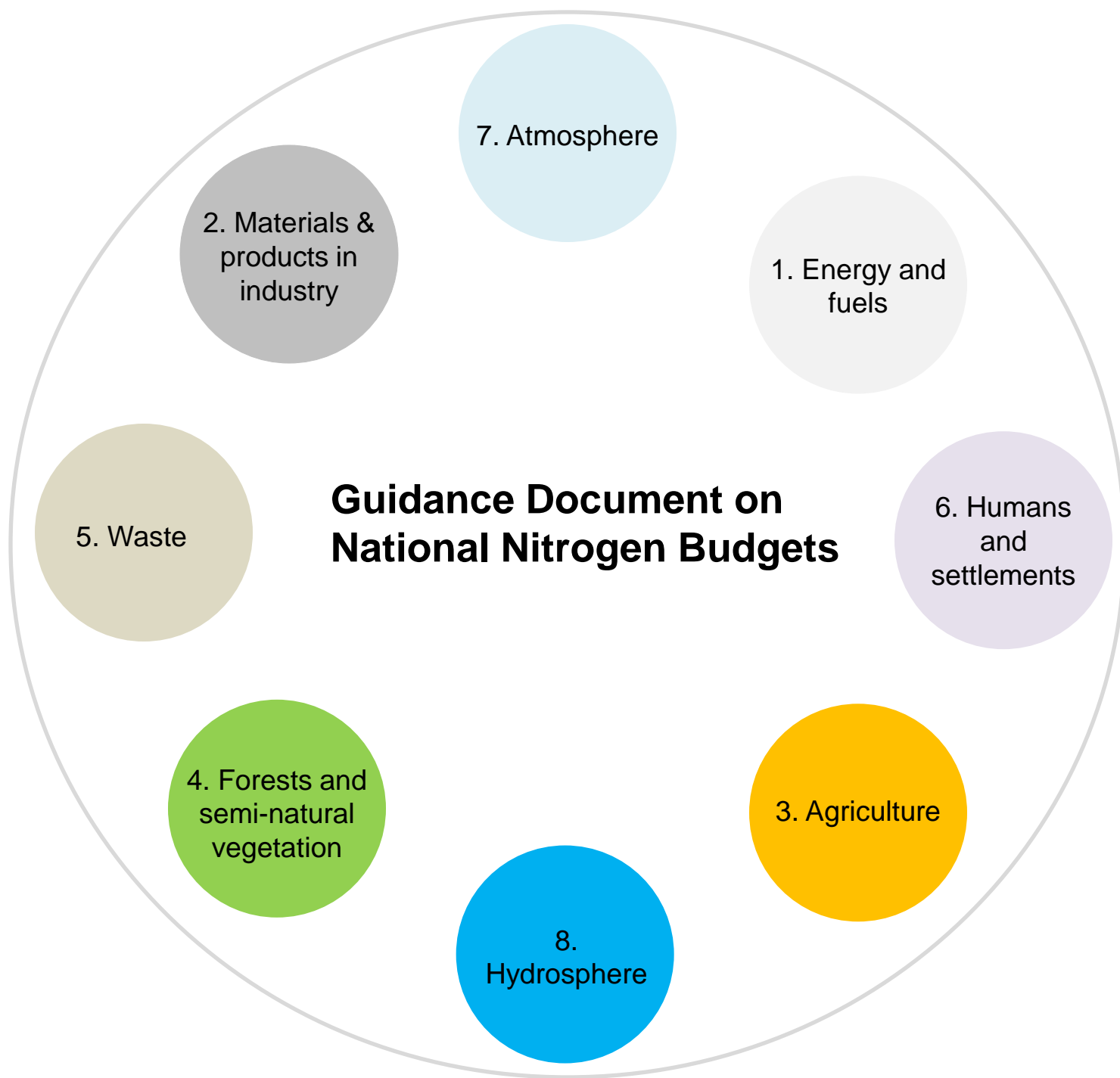


# Analyzing consumer-related nitrogen flows: A case study on food and material use in Austria. Application of Annex “Humans & Settlements”

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Institute of  
Systems Sciences,  
Innovation &  
Sustainability Research



**Guidance Document on  
National Nitrogen Budgets**

7. Atmosphere

2. Materials &  
products in  
industry

1. Energy and  
fuels

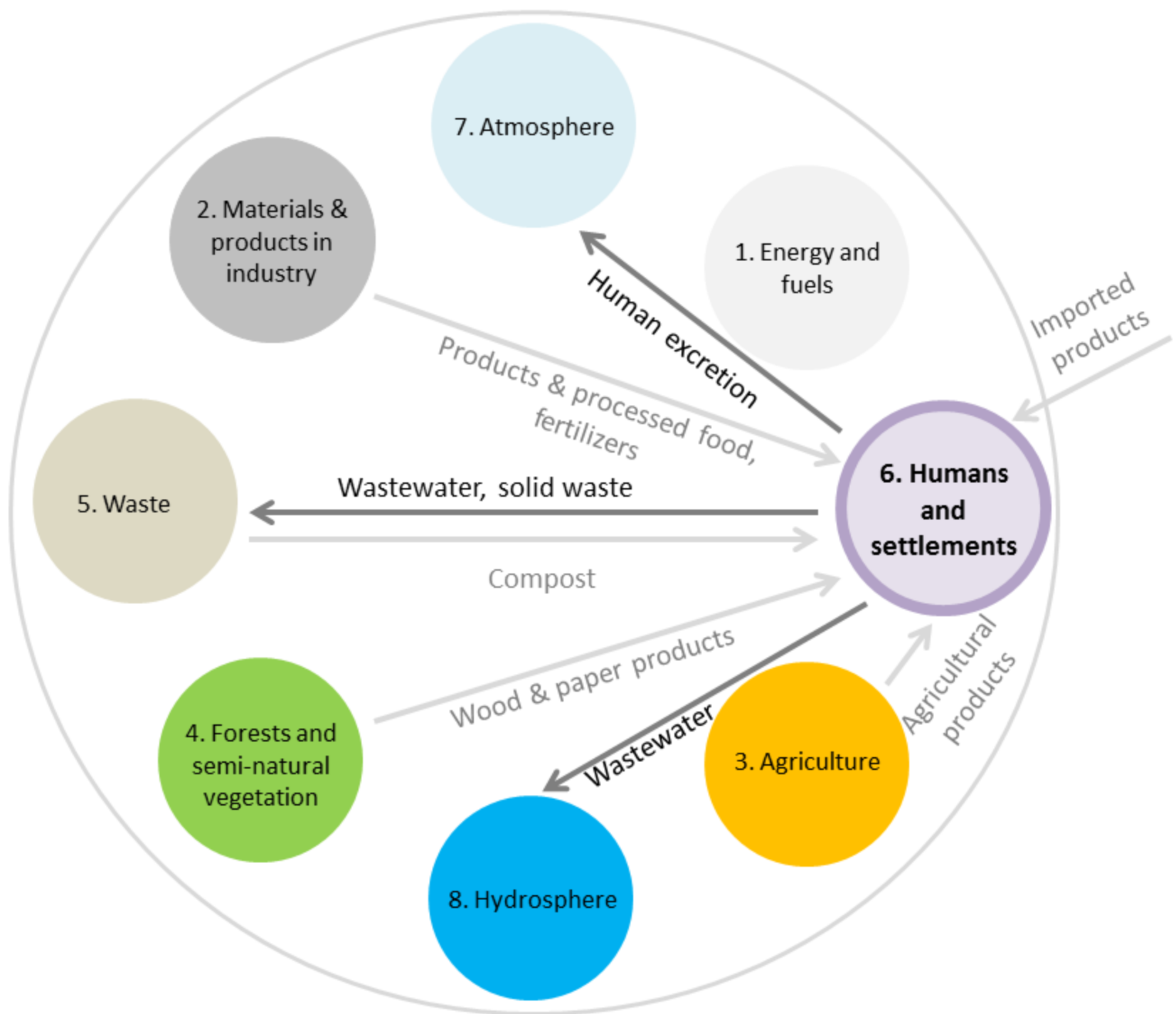
6. Humans  
and  
settlements

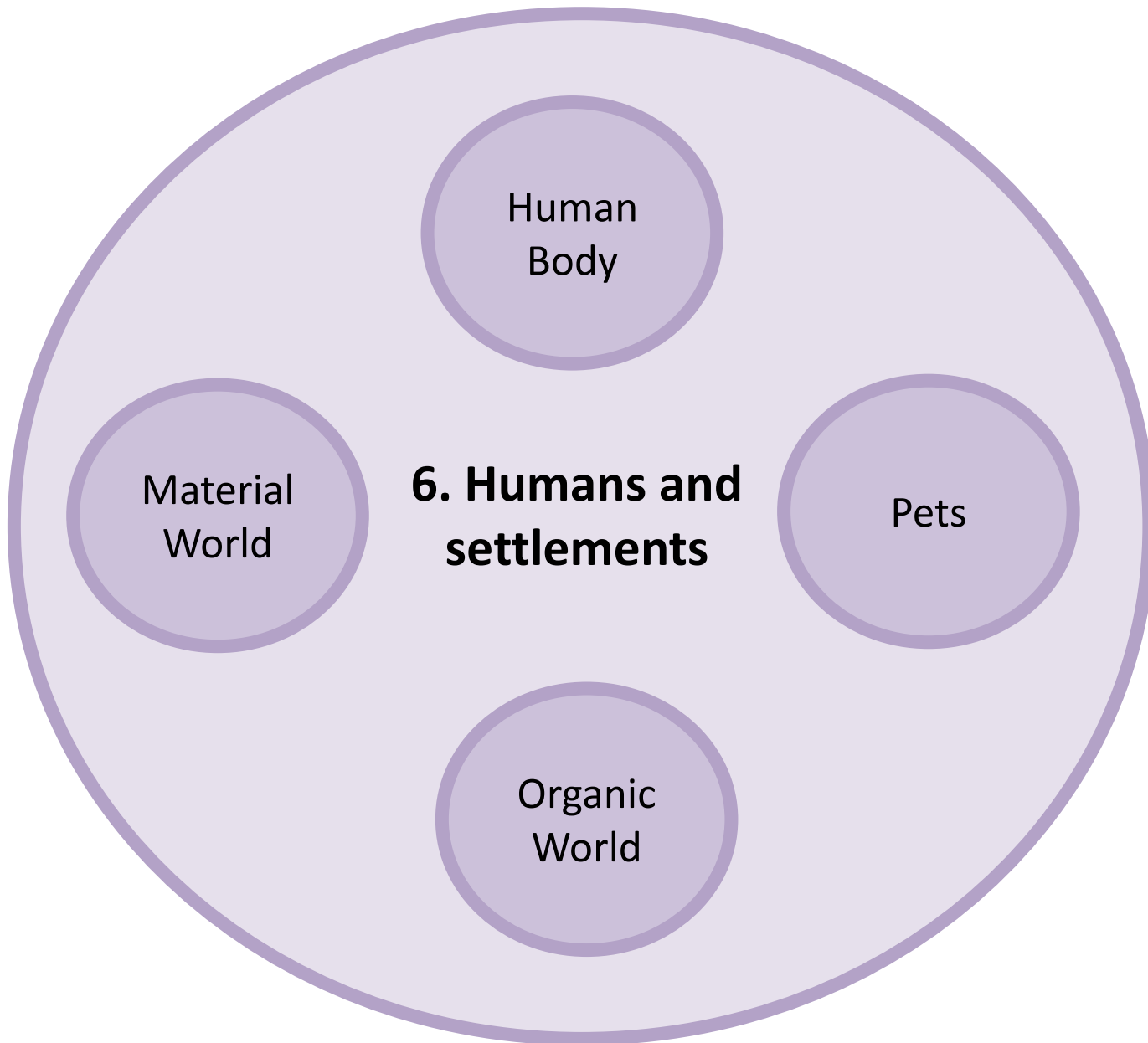
5. Waste

4. Forests and  
semi-natural  
vegetation

3. Agriculture

8.  
Hydrosphere





Human  
Body

Material  
World

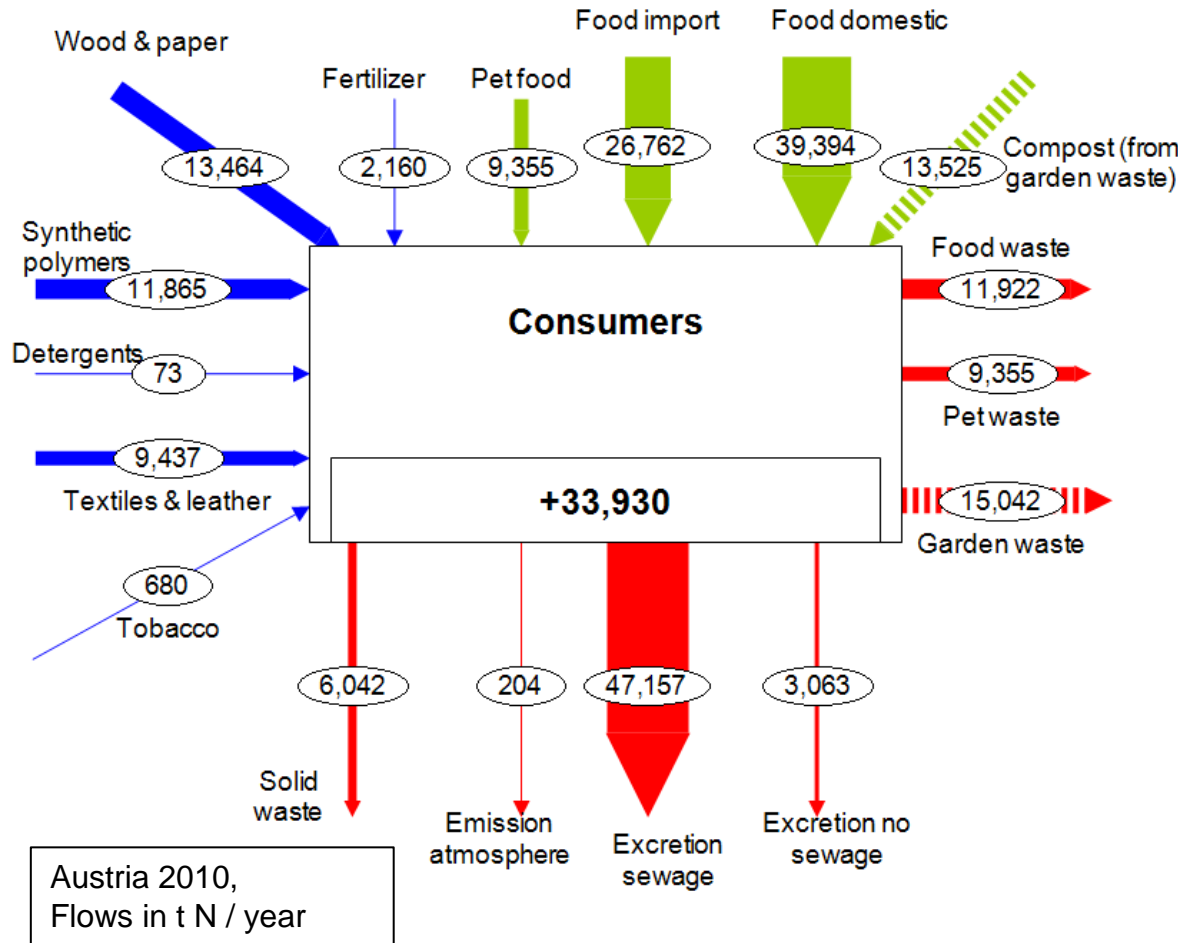
**6. Humans and  
settlements**

Pets

Organic  
World



# Results



	<b>t N / year</b>
Total inflows	127 000
Total outflows	93 00
<b>N balance (infl – outfl)</b>	<b>34 000 (27% of inflow)</b>
Energy	30 000

# Uncertainties

Level	Uncertainty Factor (UF)	Application
1	1.1	current official statistics, measurement data, data from appropriate literature
2	1.33	expert estimates, outdated official statistics, unofficial statistics, presentations, industry reports
3	2.0	assumptions for which neither official statistics nor expert estimates were available often based on based on on-line data sources or publications without accurate literature reference
4	4.0	an estimate based on a calculation derived from assumptions only

# Uncertainties

	N flow	N min	N max	UF derived
	t N / year			
inflows	126 700	99 000	171 000	1.3
outflows	92 800	64 400	138 000	1.5
<b>balance</b>	<b>33 900</b>	<b>34 700</b>	<b>32 900</b>	<b>1.0</b>
energy	30 000	22 600	40 000	1.3



# Conclusion

- Focus: consumers
- Material products: 28% of inflows, knowledge gap
- Results strongly depend on availability of national sources of information!

**Thank you.**