



EMAS digital

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akaryon GmbH, Petra Busswald



Governance of the Energy Union and Climate Action Regulation

“The use of consistent data to report GHG emissions is essential”

The European Green Deal

„requires mobilising both the public and private sector”

Non-Financial Reporting Directive NFRD & Proposal for a Corporate Sustainability Reporting Directive CSRD

„more detailed sustainability reporting requirements and the establishment of binding reporting regulations even for SMEs “

European Climate Law

„... a climate neutral EU until 2050. Collective target: to achieve at least minus 55% pure-GHG-emissions until 2030, compared to 1990 ...”

Sustainability reporting, voluntary



ESG-COCKPIT
NACHHALTIGKEITS-PERFORMANCE
MESSEN & MANAGEN

Name	URL	Origin	Responsible	Description	ESG	Data requirements	Indicators
GHG Protocol	ghgprotocol.org	2001 (first Standard, started dev. 1998)	World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD)	Standard for CO2 accounting	E (climate)	Energy related and other greenhouse gas emissions	50 3
CDP	cdp.net	since 2000, since 2012 in the EU	gGmbH Berlin (for Europe)	Carbon Reporting Schema	E (climate)	Energy related and other greenhouse gas emissions	50 10
EMAS	ec.europa.eu/environment/emas/	1993 (EMAS Regulation 1836/93)	DG Environment	Environmental management (also covering ISO 14001)	E	material, waste, waste water, water, energy, mobility, biodiversity/land use, accidents	100 15
GRI	globalreporting.org	since 1997 (US)	GRI secretariat (NL)	Comprehensive reporting	ESG	Ecological, economic, social, governance Status quo reporting	300 100
GWÖ	ecogood.org	2010 (AT origin)	International Federation for the Economy for the Common Good e.V.	Comprehensive reporting	ESG	Ecological, economic, social, governance Common good vision – matrix of topics and target groups Transformation focus	300 80
SDG	sdgs.un.org/goals	2015 (UN) after: Rio, MDGs	Division for Sustainable Development Goals (DSDG) in the United Nations Department of Economic and Social Affairs (UNDESA)	Targets (and measures)	ESG	Targets and measures	25 0

Obligatory reporting, starting 2022



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EU taxonomy (Art. 8)

- **Requirements:** classification of activities
- **Concerns:** exchange-oriented and all enlisted companies (2020/852)

Sales, investments (CapEx), operating costs (OpEx)

- Significant contribution towards the environmental goals
- Do not significantly harm
- Comply with minimum standards OECD, UN, ...

	1 Climate
mitigation	2 Climate
adaptation	3 Water
	4 Circulariy
	5 Pollution
	6
Biodiversity	

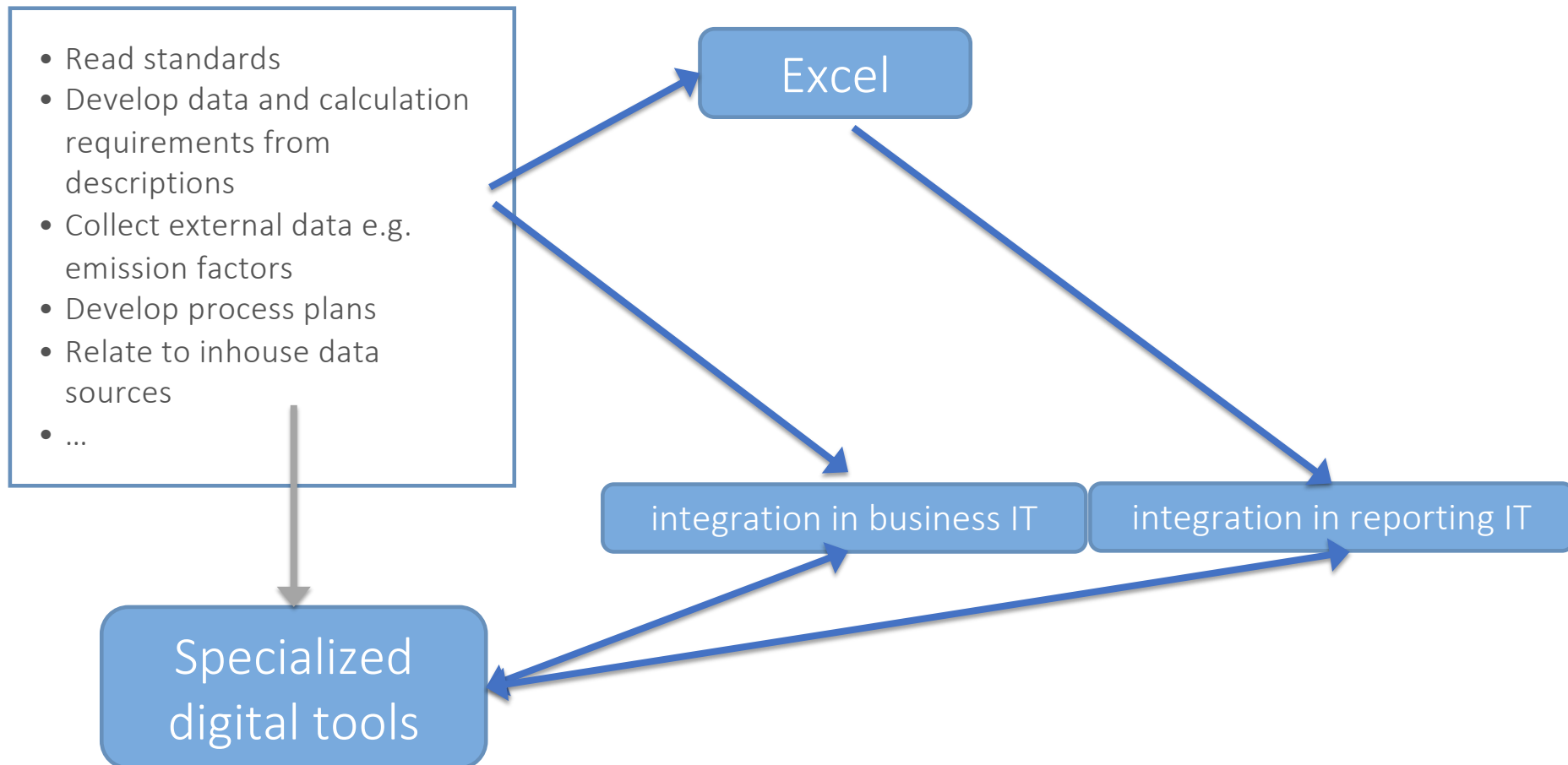
Sustainable Finance (2019/2088)

- **Requirements:** ESG information from bank clients
- **Concerns:** all bank clients

CSRD directive (2013/34/EG), taxonomy: further environmental goals

- **Requirements:** Standard ESG reporting
- **Concerns:** big and all listed companies plus ...

How to implement reporting?



Digital evolution in sustainability management



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90ies Early Adopters
prepared their own
(Excel) tools

2010ies
web tools
Freeware
Commercial offers

2020ies
interfaces
Integration
with other
business IT

- Responsibilities**
- Marketing, communication
 - Sustainability management
 - Financial controlling
 - Business reporting

TOP challenges in sustainability management

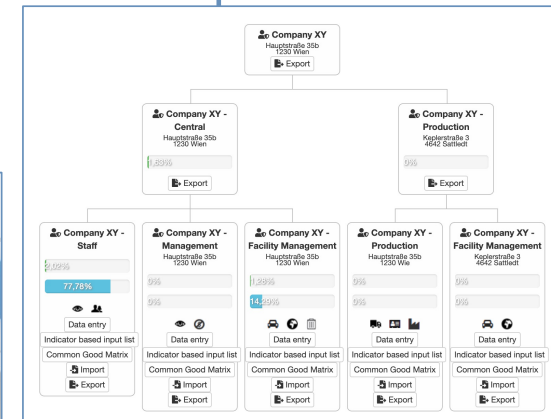
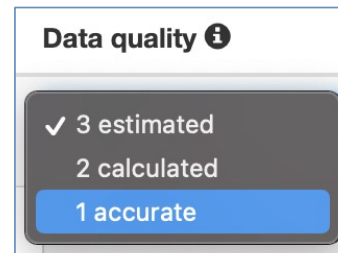


1. Data collection

→ much **easier, (partially) automated**; interfaces configurable; roles and rights; work in teams; plausibility limits can be set, ...

2. Data quality secured

→ **no version conflicts and discrepancies**, because no files have to be sent around and merged manually; data quality maintained through to evaluation



3. Documentation

→ data origin and data quality can be managed integratively and can be viewed for each data point, resulting in an **optimal audit/certification basis**

A form titled "Comment" with a text area containing "Quantity was taken from the delivery bills." Below the text area is a file upload section with the text "Upload file (file types: *.xls, *.xlsx, *.pdf, *.jpg, *.doc, *.docx; Max. file size: 2 MB)".

4. Data pool

→ no more searching for data/evaluations/numbers! Knowledge is accessible, not dependent on one person, who knows which version is correct; **material for reports**

Supporting data management

TOP challenges in sustainability management

5. Changing and extending standard requirements

→ generates no more effort, because changed requirements are mapped in the tool and do not have to be manually updated







6. Complex calculations, including inserting individual indicators

→ Calculation of indicators/key figures and rules are deposited in the tool; do not have to be adjusted, ...

7. Emission factors change and are different depending on the location (for locations worldwide)

→ **tool database** regular updates

**efficient
analyses and reporting**

Indicator 	Description	Unit 	 Our Report 2020 	 Our Report 2021 
GHG	Scope 1 - Direct greenhouse gas emissions	t CO2e	9,07682535	7,55083400
GHG	Greenhouse gas emissions from biomass	t CO2e	12,13838712	4,43674347
GHG	Scope 2 - Indirect greenhouse gas emissions from electricity and heat	t CO2e	7,83932442	0,50164828
GHG	Scope 2 - Indirect greenhouse gas emissions from electricity and heat, location based	t CO2e	7,83932442	0,50164828
GHG	Scope 2 - Indirect greenhouse gas emissions from electricity and heat, market based	t CO2e	7,83932442	0,50164828
GHG	Scope 3 - Other indirect greenhouse gas emissions	t CO2e	24,77876558	20,03597483

Advantages of specialized web tools

EXCEL

Build and maintain

- Input data (which?) – formular (to be developed) → results - representations
- Inefficient if done individually, contradicting „following a standard“

Collaborative working not possible

- Version conflicts
- Mistakes

Technical limits – barriers for important digital features

- Transparency (sources, files, comments, ...)
- Data quality and tracking

SPECIALIZED WEB TOOL

Requirements ready

- Input data lists automatically processed
- Emission factors in database
- formula included
- Open for future updates (releases)
- „digitale features“: Transparency, data quality, ...

Customizing also possible

- Configuration to specific needs
- Data access, security and exports

Integration in other „Business Software“?



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Data management software only

• Pros

- All in one
- one Login
- No data transfer errors (?)

• Cons

- Too much in one place – loose overview
- correct Reporting?

Reporting software

• Complexity

- More than value*factor

• Upgrades

- Competences for upgrades?
- Future proof?

• Interfaces

- No technical hurdles
- Automization possible
- Data matching necessary anyway

• Single Login

- One login possible
- Transfer of users
- Specialized roles/access rights

„Layout“ software in addition

• Specialized

- Layout
- Figures

• Other users

- Different competences



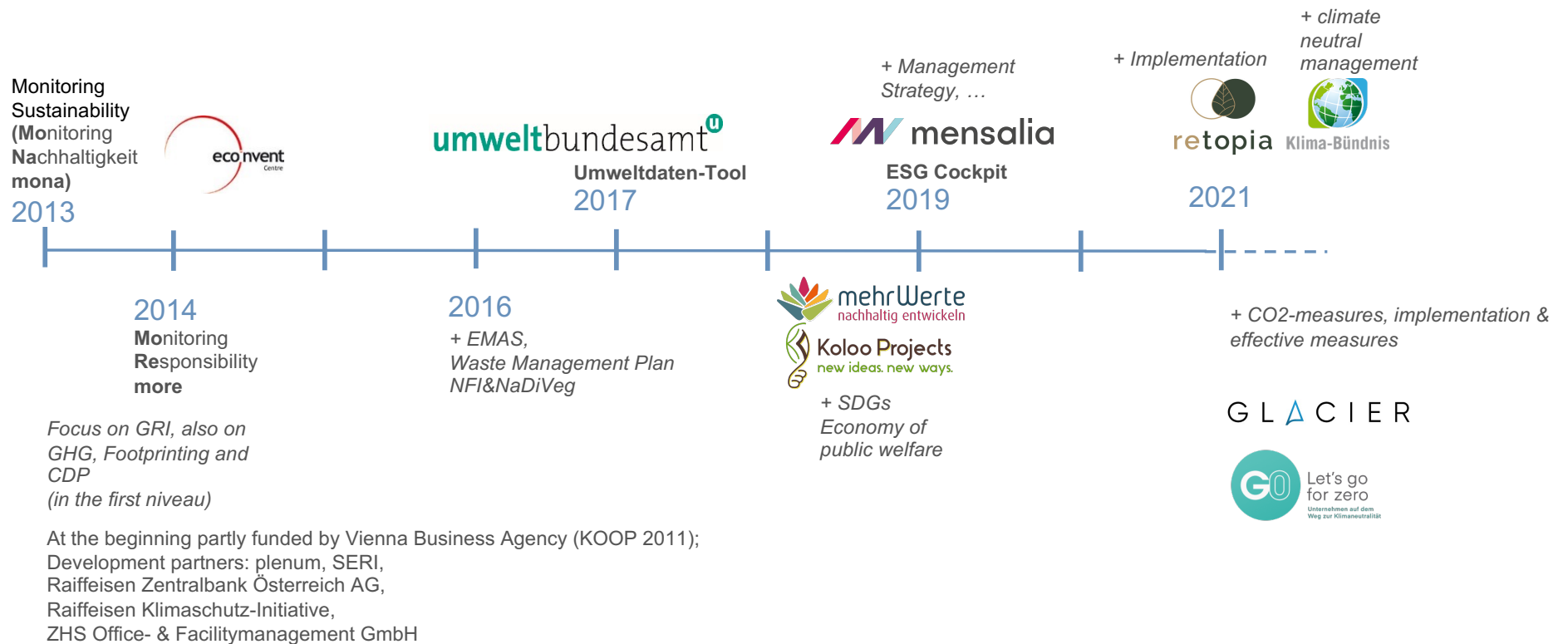
about ESG-Cockpit
and how it works

Roots and development of the ESG-Cockpit



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For clients from all branches and dimensions, private and public
in GER und AU as well as international



Further innovation funding:
sfg F&E Call smart production, Wirtschaftsgentur Wien
Innovation und FFG at.net

ESG-Cockpit: Functions and Services



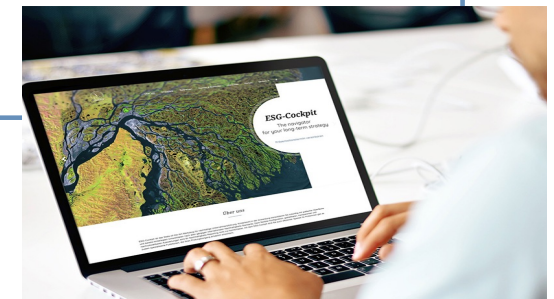
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Supported Reporting Standards

- **GHG** Climate footprint
- **EMAS** Environmental management (ISO 14000)
- **GRI** Global Reporting Initiative
- **CDP** Carbon Disclosure Project
- **NFRD** Non-Financial Reporting Directive
- **WMC** Waste Management Concept
- **SDG** UN Sustainable Development Goals
- **ECG** Economy for the Common Good

Product and services

- Development from Austria
- Web-based tool (SaaS)
CO2-neutral European quality servers,
in-house installation possible
- Individual adaptations also in web version e.g. interfaces, reports, etc. in general, as well as in relevance with Partner-Tools like Glacier, Let's Go for Zero, ns.publish
- Involvement of customers in development
- Training, support, consulting and coaching (certified partners)
- Available in multiple languages



ESG-Cockpit – principle input - output



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1

Choose indicator(s) GHG EMAS GHG emissions

Data input requirements automatically processed

2

Enter input data (or import)

3

Indicators are calculated

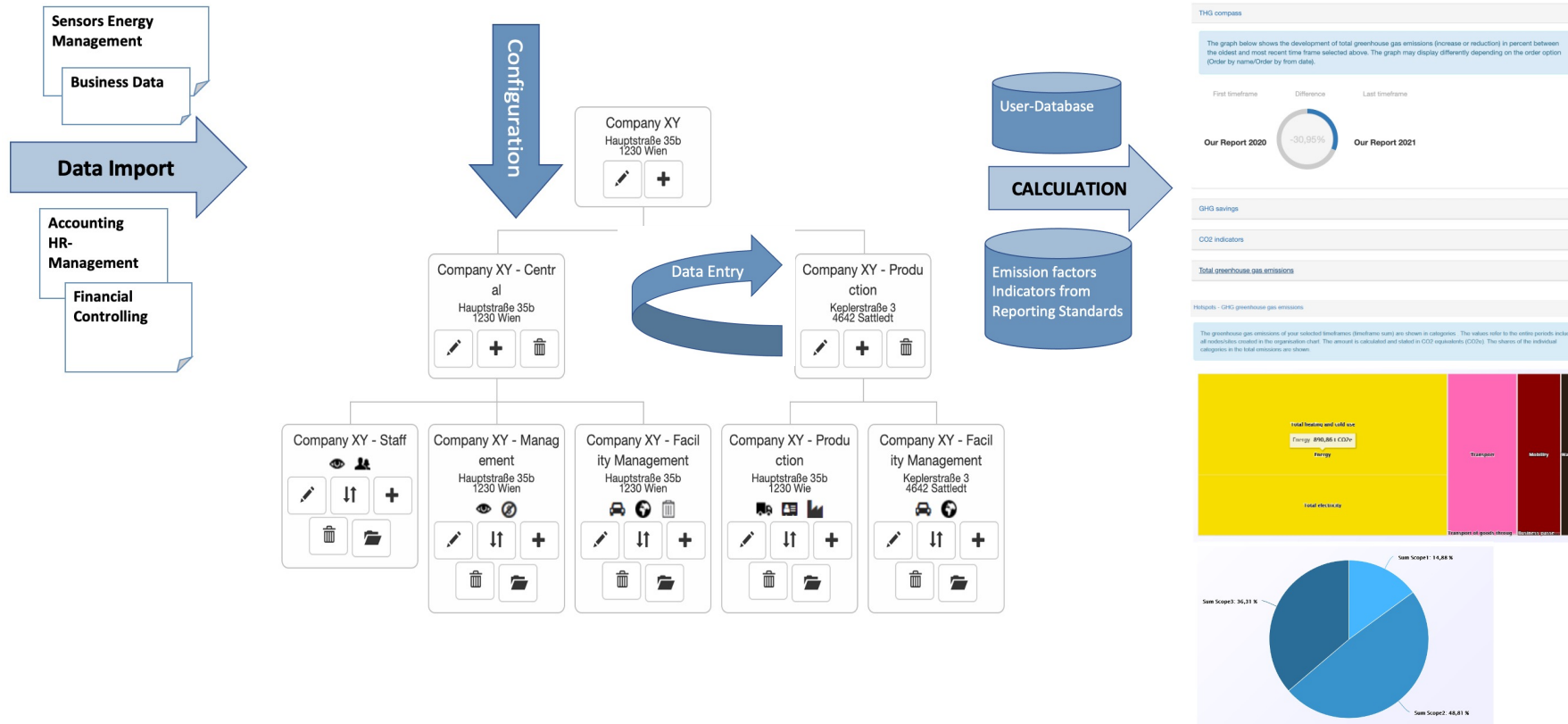
Check and use indicator results

Scope 1 - Direct greenhouse gas emissions	t CO2e	0,05629
Scope 1+2+3, location based	t CO2e	0,07290

ESG-Cockpit Workflow



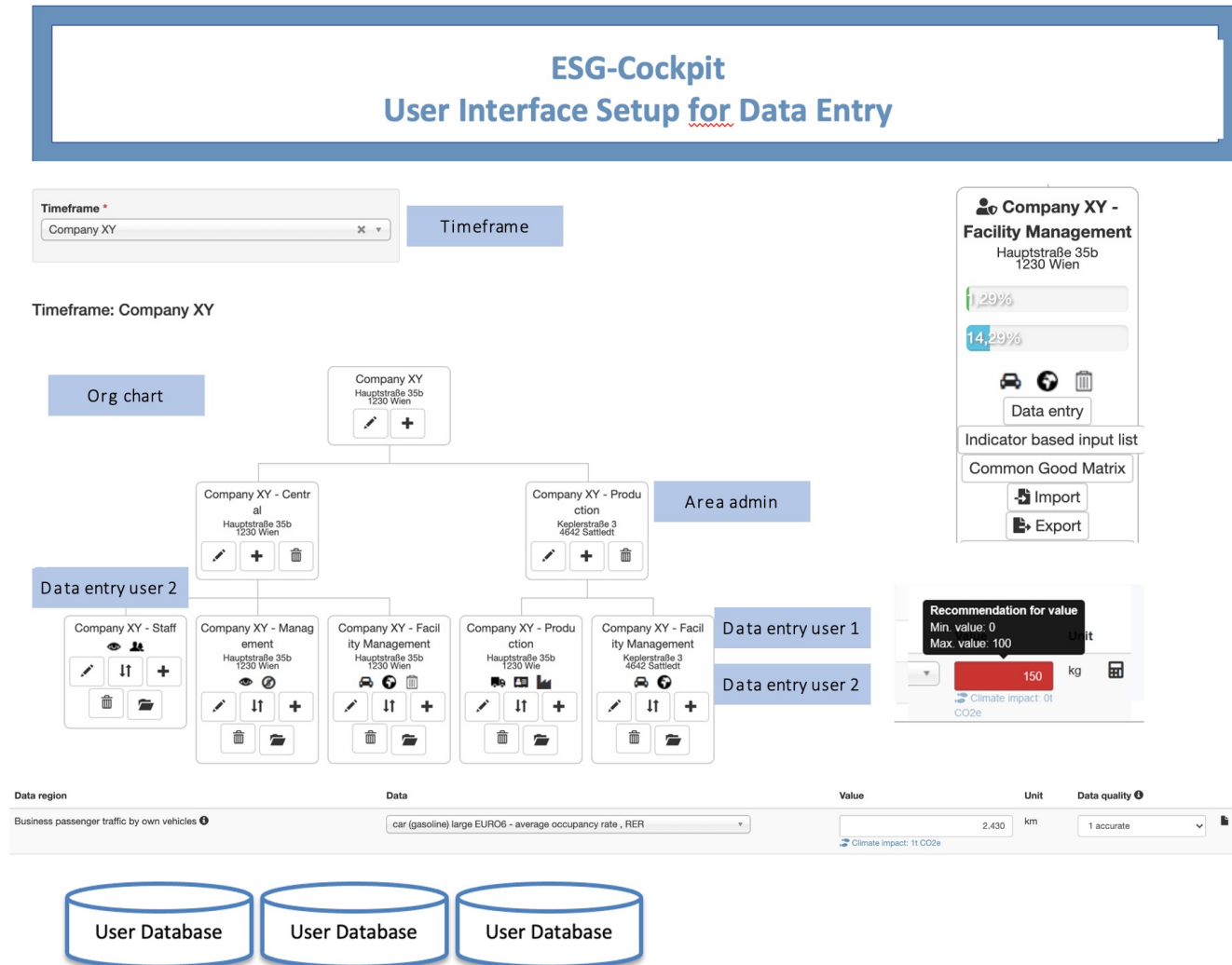
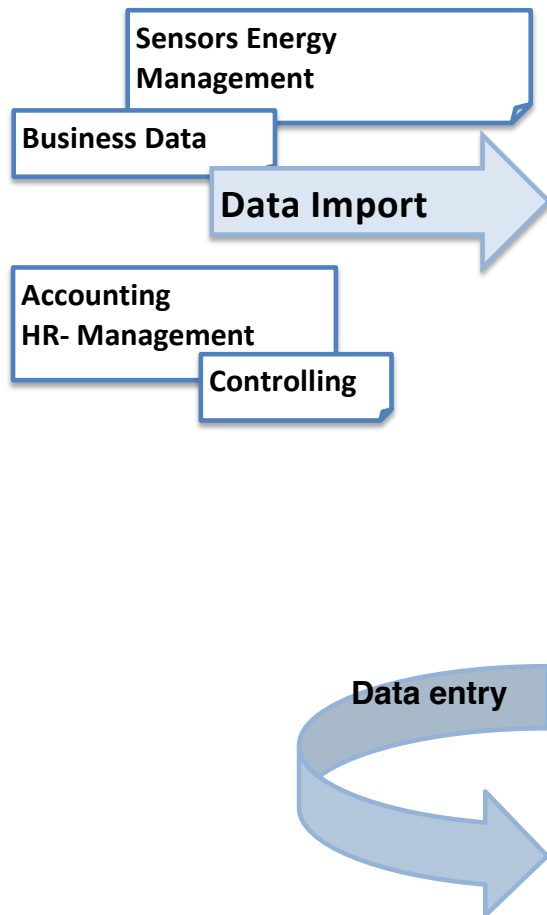
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Communication
Sustainability
Management

Export to
Reporting or
Rating Tools

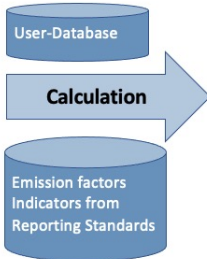
ESG Data entry - Data management



ESG Analyses – Tables, graphs, reports



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ESG-Cockpit User Interface Analyses

One-Click-Reports

Zeiträume *
Unser-Report-2020 ~ 01.01.2020 ~ 31.12.2020 (Arbeitszeitraum) X
Unser-Report-2021 ~ 01.01.2021 ~ 31.12.2021 X

Order *
Nach Name sortiert

OK

THG compass

The graph below shows the development of total greenhouse gas emissions (increase or reduction) in percent between the oldest and most recent time frame selected above. The graph may display differently depending on the order option (Order by name/Order by from date).

First timeframe: Our Report 2020
Difference: -30,95%
Last timeframe: Our Report 2021

GHG savings

CO2 indicators

Total greenhouse gas emissions

Greenhouse gas emissions total

CO₂ 12,90 t CO₂e

Evaluation piano

Text input Economy Suppliers Social issues Employees Environment Backpacks GHG My data Products References

My key indicators NFI Financial sector SDG VERSION 201904 CDP Climate targets RBI Measures Individual evaluation menus

Factor version 2020 X OK [Show calculator](#)

Results Calculations GRI-Output Data regions Merged

References None EMP EMP FTE m² Euro Products

Product share None My products

Differences None Absolute to the first column Absolute to the left column Relative to the first column Relative to the left column Relative to the right column Hotspot Average

t kg Hide indicator column Include My Data Fixed table header Show meta data Hide rows without results

Decimal places: 8

Division by Scopes

0% 13% 87%

Sum Scope1 t CO₂e
Sum Scope2 t CO₂e
Sum Scope3 t CO₂e

Greenhouse gas emissions by area

Electricity Heating Train Flight Car Paper

Flight Heating Car Credit Fly P...

Targets, Target paths, Scenarios



Awareness Check ▾

GHG reduction

Calculation result: Greenhouse gas emissions Total [t CO₂e]

Base timeframe: praes-EMAS-report 2018 (2018)

Yearly change [%]: 3 (Decline)

Number of years to target: 10 (2028)

Goal definition: Carbon Neutrality



Inclusion of suppliers

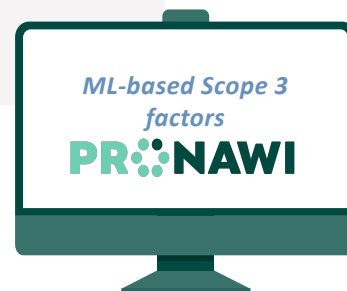
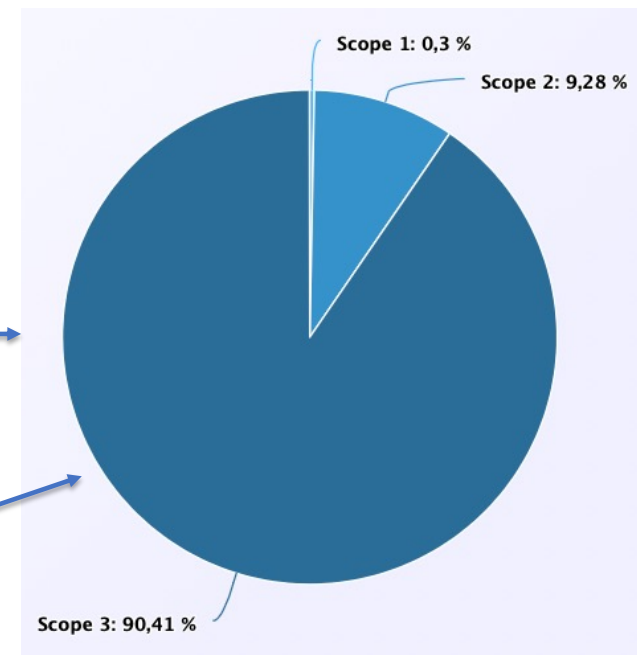


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Input suppliers' management

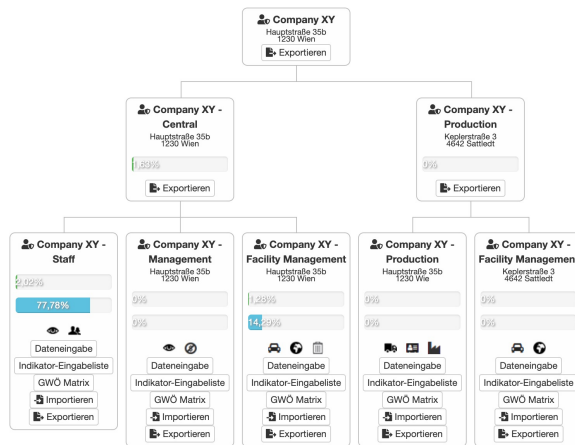


Output resulting Scope3 emissions





Process steps according to experiences



1

Preparations: Context analysis, indicator choice

Location/s	Centralized/decentralized collection in the organization	Units	Person/s in charge
At which locations/companies is the data area relevant?	Is the data collected via a central point or per location/company? E.g. HR data is recorded purely in the headquarter	In which units (weight, volume, etc.) the data is available	Which person(s) is/are responsible for data collection or this type of data?

2

Configuration in tool: sites & users

3

Data import/record

+ - Business passenger traffic by plane general
 Flight average, RER
 2.500 > 2.430 pkkm
 Climate impact: 0t CO2e
 If travel routes are unknown.

Timeline preparation

Web version: License agreement –
First installation 1 week
Inhouse version: specific

Timeline implementation

Example

1 + 2 1 month

3 1 month

4 + 5 1 month

4

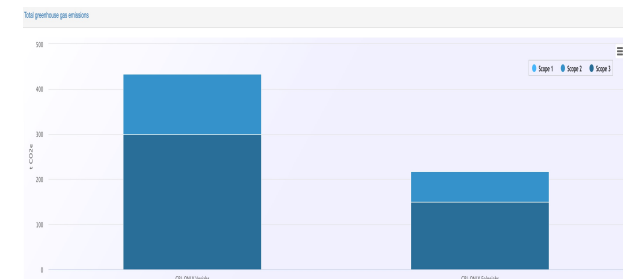
Preparation of the evaluation

5

Evaluation and reporting

6

Controls and monitoring



www.esg-cockpit.com

Contact: Petra Busswald
busswald@akaryon.com