



CLIMATE GOVERNANCE: IMPLEMENTING PUBLIC POLICIES TO CALCULATE AND REDUCE ORGANISATIONS CARBON FOOTPRINT « Clim'Foot »



Final conference of the Clim'Foot project

LIFE14 GIC/FR/000475
Paris – June 14, 2018





CLIMATE GOVERNANCE: IMPLEMENTING PUBLIC POLICIES TO CALCULATE AND REDUCE ORGANISATIONS CARBON FOOTPRINT « Clim'Foot »



Opening Philippe MASSET- ADEME

LIFE14 GIC/FR/000475
Paris – June 14, 2018





Programme of the day

Morning

9.00	Welcome coffee
9.30	Welcome speech and presentation of the project: <u>Mr Philippe MASSET (ADEME) & Ms Clémence GRACIA (ADEME)</u>
10.00	The Clim'Foot database: a common methodology for 5 National databases <u>Ms Francesca REAL (EcoInnovazione) and Ms Simona SCALBI (ENEA)</u>
10.25	The Bilan Carbone® Clim'Foot tool: an adaptation of the tool for the calculation of carbon footprint of organization <u>Mr Željko JURIĆ (EIHP)</u>
10.40	Creation and implementation of online and onsite trainings <u>Mr François KORNMANN (IFC) & Mr Lóránt RIESZ (HOI)</u>
	Questions & Answers
11.15	Five different voluntary programmes for five countries <u>Ms Louiza PAPAMIKROULI (CRES) & Mr Edouard FOURDRIN (ADEME)</u>
11.40	The cooperation platform: the flagship tool of the project <u>Ms Clémence GRACIA (ADEME) & Ms Jouairyatou WAGUE (ABC)</u>
	Questions & Answers
12.15	Lunch

Afternoon

2.00	Monitoring of interest
2.15	Policy makers involved in the project share their experiences! <u>Mr Dimitris NIAVIS, Ministry of Environment & Energy/ Climate change Department (Greece)</u> <u>Ms Melita ZDILAR, Ministry of Environment and Energy (Croatia)</u> <u>Ms Nicoletta FASCETTI LEON, Italian Ministry for the Environment Land and Sea - TAU Sogetis (Italy)</u> <u>Ms Barbara KOVÁCS, Ministry of Innovation and Technology (Hungary)</u> <u>Mr Gilles CROQUETTE Ministry for the Ecological and Inclusive Transition (France)</u>
	Questions & Answers
3.30	Feedbacks of organisations participating in the voluntary programme <u>Mr Dejan MILJENOVIĆ, Faculty of Economics from University of Rijeka (Croatia)</u> <u>Ms Anna MERLIN, Institutional Affairs, International Relations and European Projects, Città Metropolitana di Torino (Italy)</u> <u>Ms Angéla MOLNÁR & Ms Viktória CHAMIKNÉ PÁL, Bunge Zrt (Hungary)</u> <u>Ms Myriam BEUQUE, Albioma (France)</u>
	Questions & Answers
4.45	Conclusion

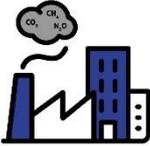
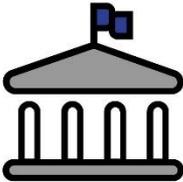


Countries with us today



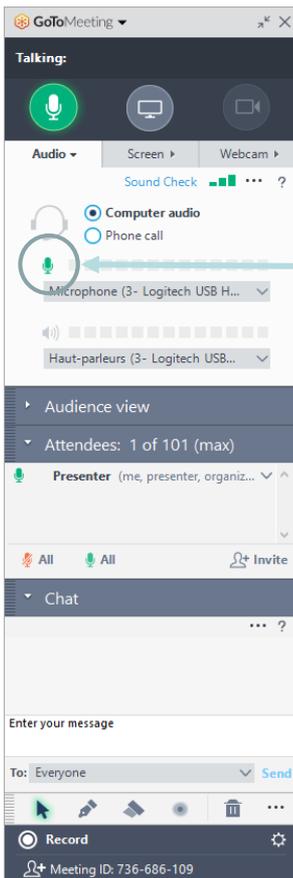


Community - Badges

- | | | | |
|---|---|---|--|
|  |  |  | <p>Organisation participating in the voluntary programme</p> |
|  |  |  | <p>Policy maker involved in the Clim'Foot project</p> |
|  | | | <p>New policy maker who may join the community</p> |
|  | | | <p>Project partners: ask us question!!</p> |

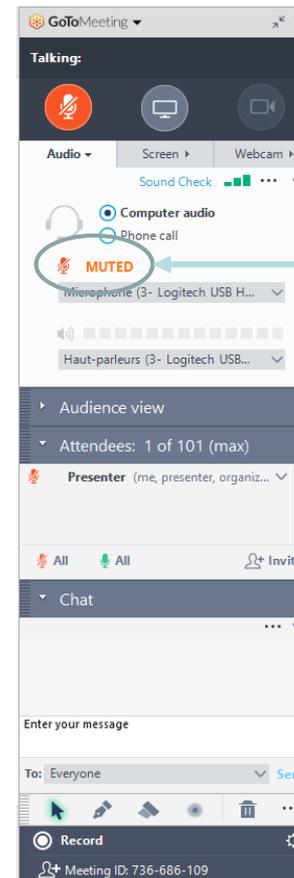


Go to Meeting



Microphone : ON

Your microphone will be muted at the beginning in order to allow a better proceeding and understanding during the webinar.



Microphone : OFF

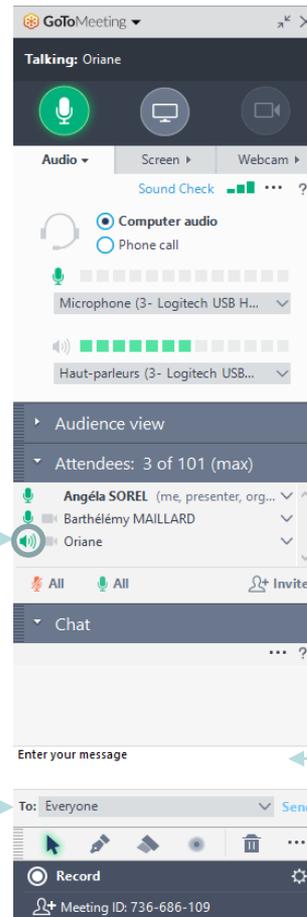


Go to Meeting

To interact with the speakers and ask all your questions, you can use the chat.

Person speaking

Keep everyone as recipient



Write your question **1**

Send it **2**



Color cards

- Here to help you voting during the day:
 - *Mood question*
 - *Multi choices question (colors don't mean anything)*
- 3 colors





CLIMATE GOVERNANCE: IMPLEMENTING PUBLIC POLICIES TO CALCULATE AND REDUCE ORGANISATIONS CARBON FOOTPRINT « Clim'Foot »



Presentation of the Clim'Foot project

Clémence Gracia (ADEME)

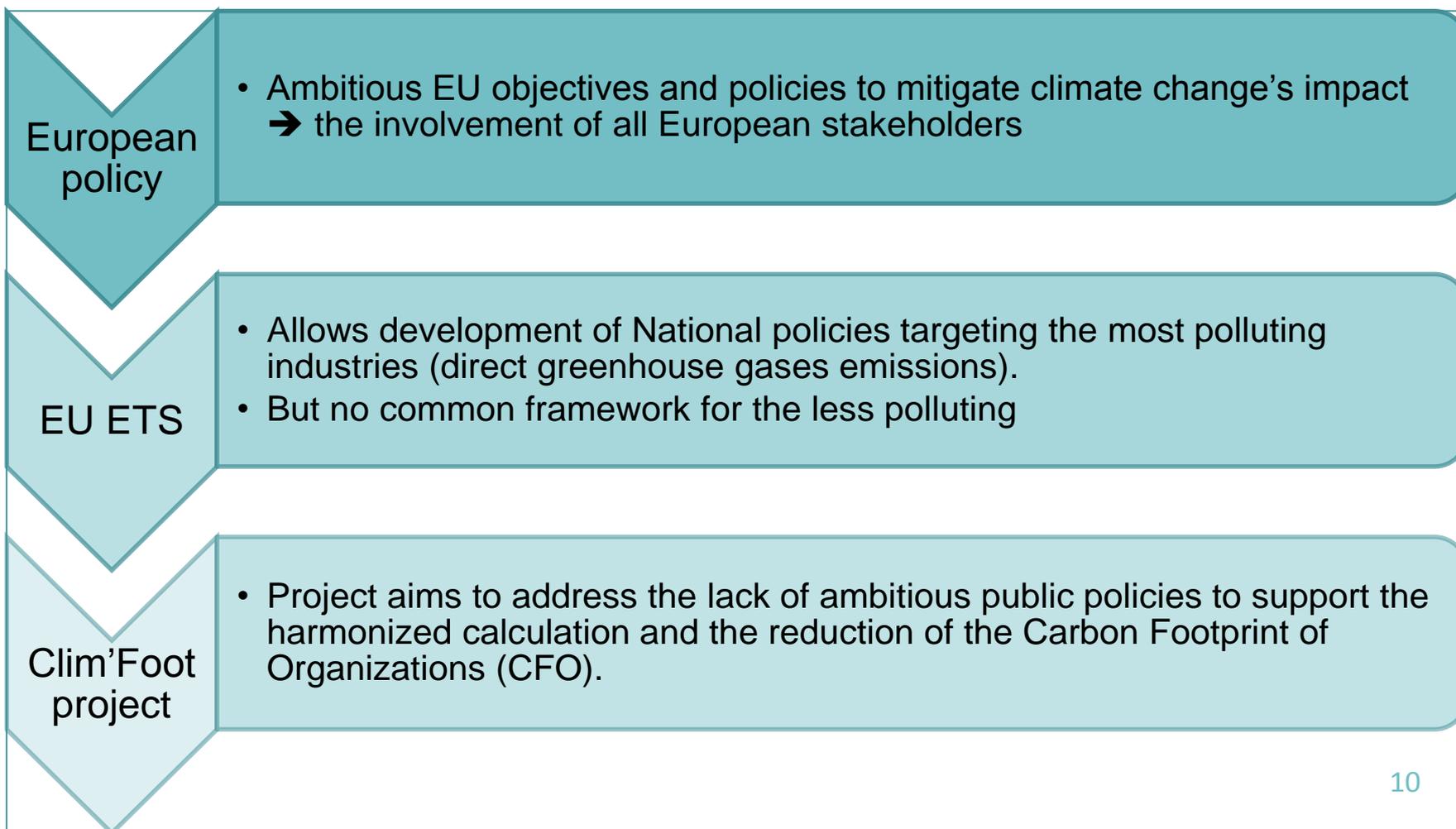
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Paris – June 14, 2018





Context





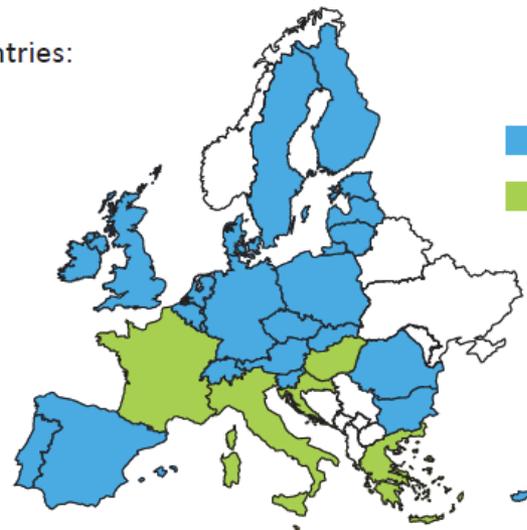
The project

Duration : 36 months

- *started in September 1st, 2015*
- *end in August 30th, 2018*

Participating countries:

- France
- Italy
- Greece
- Hungary
- Croatia



- EU countries
- Countries involved in Clim'Foot

Budget information:

- *Total amount: 1 471 767 euros*
- *% EC co-funding: 60% ⇨ 883 060 euros*
- *LIFE programme*

Project's implementors:

- *Coordinating Beneficiary: ADEME*
- *Associated Beneficiaries: CRES (Greece), EIHP (Croatia), ENEA (Italy) and HOI (Hungary) + IFC (France) and Ecoinnovazione (Italy)*



Objective of the project

The **objective** is to provide European policy makers with a validated toolkit for developing and implementing public policies for CFO calculation and reduction.

This project is a **first step** for:

- **Gathering** stakeholders around this issue of carbon accountability and management and working on capacity building
- **Applying** the virtuous circle: quantify to know, know to act, act to reduce
- **Testing** the tools and methodologies developed, for 5 countries
- **Harmonizing** the implementation of common methodologies (constitution of databases for example)
- **Measuring** the environmental performance of an organization



To achieve this general objective, **some activities** have been put in place:

Activities	Description
Development of 2 toolboxes	One for policy makers One for organisations
Creation of training material	One for policy makers The other for organisations An online Elearning
Development of emission factors databases	A methodology for the development of emission factors has been implemented, consistent with ISO 14064, allowing the creation of: <ul style="list-style-type: none"> ➔ A database of European emission factors; ➔ 5 National databases adapted to the context of the partner countries
Implementation of voluntary programmes	A voluntary program, depending on the level of maturity of each individual's practices.
Dissemination	Promotion and dissemination : to allow the diffusion of the results and to initiate a European dynamics around the carbon accounting
Monitoring	Monitoring and evaluation of the project in terms of socio-economic and environmental impacts

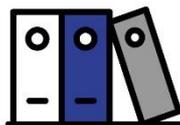


Key figures

EF DATABASE

5

National databases of
emission factors



1 066

Country-specific EFs included
in the Clim'Foot database

156 in France

173 in Greece

172 in Croatia

383 in Hungary

182 in Italy

151

European EFs included in
the Clim'Foot database

306

People trained in CFO asse-
sment and management under
the project



74 Private organisa-
tions involved in
training sessions

35 Public organisations

13 On-site training
sessions in the
5 countries



5

Toolboxes developed under
the Clim'Foot project



5 National training mate-
rial on CFO manage-
ment

4 CFO calculation tools
adapted to the context
of each partner country

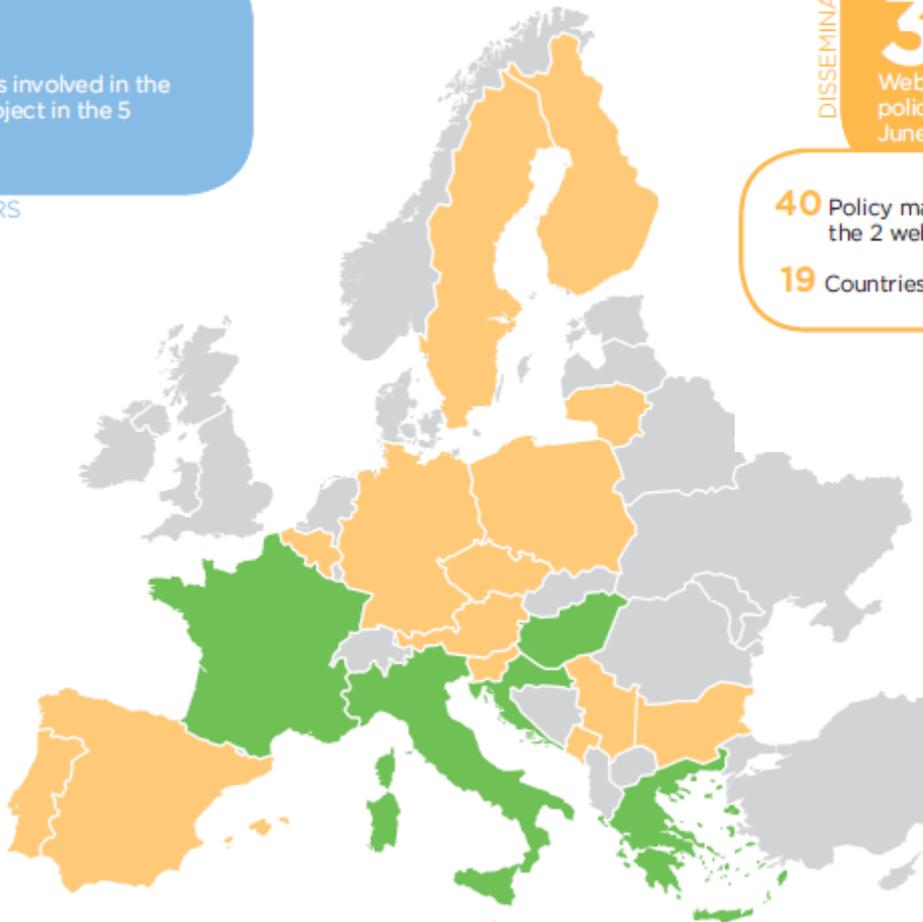


Key figures

53

Policy makers involved in the Clim'Foot project in the 5 countries

POLICY MAKERS



DISSEMINATION

3

Webinars and workshops for policy makers in May and June 2018

40 Policy makers attended in the 2 webinars

19 Countries represented

40 Policy makers expected for the workshop in June 2018

CLIM'FOOT CONSORTIUM

7

Partners from 5 EU Member States





CLIMATE GOVERNANCE: IMPLEMENTING PUBLIC POLICIES TO CALCULATE AND REDUCE ORGANIZATIONS CARBON FOOTPRINT “Clim’Foot”



The Clim’Foot Database: a common methodology for 5 national database

Francesca Reale, Gioia Garavini, Alessandra Zamagni – Ecoinnovazione S.r.l.
LIFE14 GIC/FR/000475 – Clim’Foot Final Conference
Paris - 14th June 2018

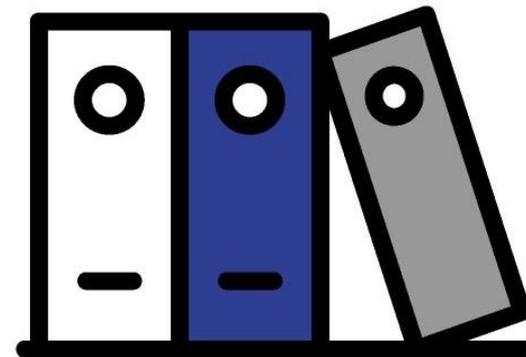




QUIZ

Which are the more populated sector in our DB?

- **RED: agriculture and LULUCF**
- **Green: Industrial processes and products use**
- **Orange: transport and energy**





Content

- 1. Introduction**
- 2. Step forward the definition of a common methodology**
- 3. Clim'Foot Database – key aspects**



1. Introduction

➤ What is the Carbon Footprint Organization (CFO)?

It is the measure of the total greenhouse gas emissions (GHG) associated directly and indirectly to an organization's activity (CFO (CO₂eq) = Σ activity data * EFs)

In the CFO, considered GHG are basically those ones targeted by the Kyoto Protocol

➤ Why a National Database of EFs?

Data currently available to perform a CFO study mostly address the direct component of the GHG emissions. Moreover, included EFs are only provided with reference to an international scale.

➤ Why a common methodology for the Database?

Main aim is to foster all over Europe the use of the standardized methodology for CFO calculation, as well as to allow data exchange when needed



2. Step forward the definition of a common methodology

➤ Analysis of existing database for CFO calculation

Database Selection

- CF database and Multi-criteria database (Life Cycle Inventory Database)

Analysed aspects

- Governance of the initiative + Covered sectors
- Methodology for Database Development
- Presentation of towards the end-users
- Data quality management
- Management of the Database

Benchmark of National Database of Carbon Footprint (D.A2.1)

➤ Methodology for constitutign the National Database (D.A2.2)



3. Clim'Foot Database – key aspects

➤ Covered sectors and product categories

Sector
Energy
Transport
Industrial processes and product use <ul style="list-style-type: none"> • Metals • Chemicals • Minerals • Pulp and paper • Semiconductor productions • Refrigerants
Agriculture
Waste Management
Land use, land use change and forestry (LULUCF)



3. Clim'Foot Database – key aspects

➤ Methodology for Database development (1/2)

EF for a CFO calculation compliant with the CFO Standard

- Scope 1 and 2 mandatory
- GHG emissions by scope and type of gas
- Characterization factors from IPCC 2013

Specific issues for CFO

- Biogenic carbon - to be accounted for but separately
- LULUCF - to be accounted for but separately

CFO Standard: GHG Protocol (Corporate Accounting & Reporting Standard); ISO 14064
GHG gas: CO₂, CH₄, N₂O, HFCs, SF₆, PFCs



3. Clim'Foot Database – key aspects

➤ Methodology for Database development (2/2)

Data collection for EFs definition – main sources used in Clim'Foot

- National Statistic Agencies
- National experts and stakeholder organisations
- IPCC Emission Factor Database
- International organisations publishing statistics
- Existing LCI databases
- LCA study by sector associations and literature

Sources: Selected to allow the development of CFO studies including the indirect emissions (e.g. emissions from the production of purchased products/raw materials)



3. Clim'Foot Database – key aspects

➤ Presentation toward end-users

Database (IT)

- Access and download (Excel sheet) by registration
- Consultation by a searchable tool

Metadata (main fields):

- Name and unique code of Category
- Process name and synonymous
- Data source, creation date and modification date
- Unit, technical description, geographical location and reference year
- Flows + uncertainty + evaluation against quality criteria

Database and metadata: Designed for large public consultation and transparency



3. Clim'Foot Database – key aspects

➤ Data Quality Management

Quality criteria (qualitative or quantitative)

- Time representativeness (TiR)
- Technological representativeness (TeR)
- Geographical representativeness (GeR)
- Uncertainty

Data Quality Rating (DQR) system (proposed in the methodology)

$$\text{DQR} = (\text{TiR} + \text{TeR} + \text{GeR} + \text{U}) / 4$$

Data Quality criteria and assessment: Developed to allow a scoring system and to favour the transition from Carbon Database to multicriteria database (for Environmental Footprint)



3. Clim'Foot Database – key aspects

➤ Overview of EFs in Clim'Foot Database

National DB include national EFs + EU EFs

SECTOR	European EFs	Hungarian EFs	Croatian EFs	Greek EFs	Italian EFs	French EFs
Energy	37	36	40	72	45	67
Transport	13	282	101	36	73	89
Industrial Processes and Products use	92	47	14	38	9	
Agriculture		1	6	10	45	
Waste Management	10	11	5	8	10	
LULUCF		6	6	9		
TOT	152	383	172	173	182	156



Thank you for the attention

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f.reale@ecoinnovazione.it



CLIMATE GOVERNANCE: IMPLEMENTING PUBLIC POLICIES TO CALCULATE AND REDUCE ORGANISATIONS CARBON FOOTPRINT « Clim'Foot »



National Emission factors Database (DB)

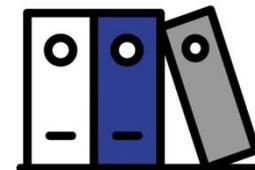
Simona Scalbi

ENEA

Clim'Foot confence Paris 14th June 2018



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DATABASE format

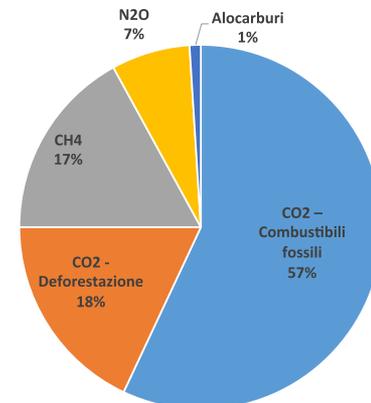
The national databases are developed *on excel files*

Each file includes six sheets:

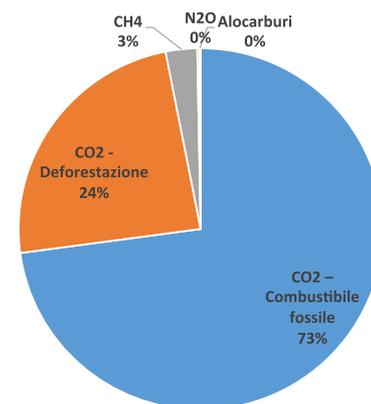
1. **The Category**: includes the categories for each languages;
2. **The National DB**: includes the description of the metadata with the the Efs, the characterized EFs and final value in CO_2eq
3. **The Clim'Foot DB**: includes the EFs downloaded on the website
4. **HFC** (Hydro Fluoro Carbon) the Characterization Factors (CFs) of HFSs
5. **PFC** (perfluorocarbon) with the CFs of PFCs
6. **GHG** is the sheet with the CFs of CO_2 , CH_{4f} , CH_{4b} , N_2O , SF_6

Characterization Factors is measure of the radioactive forcing of each gas respect to the CO_2eq

World GHG emissions in absolute value (IPCC 2007)



World GHG emissions in CO_2eq (IPCC 2007)





DATABASE format

Italian EU-EMISSION FACTORS-Inport9-3-17.xlsx

Cerca nel foglio

Home Layout Tabelle Grafici SmartArt Formule Dati Revisione Sviluppo

Font: Tahoma, Size: 11, Bold, Italic, Underline, Text color, Background color, Paragraph: Indent, Bullets, Numbering, Styles: Generale, Normal, Neutro, Non valido, Valido, Calcolo, Cella collegata, Collegamento..., Controlla celle, Inserisci, Elimina, Formato, Temi

1	Proposition for National DATA BASE																Elemento
	name of category (National Language))			name of category (EN)			Unique code of category	Process Name (National Language)	Process Name (English Language)	Synonymous (National language)	Synonymous (English language)	ClimFOOT ID	Unit (English language)	CO2	CH4f		
	Livello 1	Livello 2	Livello 3	Level 1	Level 2	Level 3											
2	Selected for Clim'Foot DB ?						OK	OK	OK	OK	OK	OK	NO	NO			
132	Trasporti	Merci	Strada	Transport	Freight	Road	7B2	Autoveicoli leggeri, benzina, percorso urbano (IT)	Light Duty Vehicles, gasoline, urban route (IT)	Piccoli camioncini	Trucks and vans	IT0097	km	4,96E-01	8,03E-05		
133	Trasporti	Merci	Strada	Transport	Freight	Road	7B2	Autoveicoli leggeri, diesel, percorso urbano (IT)	Light Duty Vehicles, diesel, urban route (IT)	Piccoli camioncini	Trucks and vans	IT0098	km	3,20E-01	3,73E-06		
134	Trasporti	Merci	Strada	Transport	Freight	Road	7B2	Autoveicoli pesanti, benzina, percorso urbano (IT)	Trucks, gasoline, urban route (IT)	Camion, autoarticolati		IT0099	km	6,13E-01	1,40E-04		
135	Trasporti	Merci	Strada	Transport	Freight	Road	7B2	Autoveicoli pesanti, diesel, percorso urbano (IT)	Heavy Duty Trucks, diesel, urban route (IT)	Camion, autoarticolati		IT0100	km	8,82E-01	6,41E-05		
136	Trasporti	Persone	Strada	Transport	People	Road	7B2	Automobili, benzina, percorso extra-urbano (IT)	Passenger Cars, gasoline, rural route (IT)			IT0101	km	1,39E-01	7,44E-06		
137	Trasporti	Persone	Strada	Transport	People	Road	7B2	Automobili, diesel, percorso extra-urbano (IT)	Passenger Cars, diesel, rural route (IT)			IT0102	km	1,36E-01	1,29E-07		
138	Trasporti	Persone	Strada	Transport	People	Road	7B2	Automobili, GPL, percorso extra-urbano (IT)	Passenger Cars, LPG, rural route (IT)			IT0103	km	1,39E-01	3,29E-06		
139	Trasporti	Persone	Strada	Transport	People	Road	7B2	Automobili, E85 (85% etanolo + 15% benzina), percorso extra-urbano (IT)	Passenger Cars, E85 (85% ethanol + 15% gasoline), rural route (IT)			IT0104	km	2,20E-01	2,69E-06		
140	Trasporti	Persone	Strada	Transport	People	Road	7B2	Automobili, metano, percorso extra-urbano (IT)	Passenger Cars, natural gas, rural route (IT)			IT0105	km	1,32E-01	2,56E-05		
141	Trasporti	Persone	Strada	Transport	People	Road	7B2	Automobili, benzina ibrida, percorso extra-urbano (IT)	Passenger Cars, hybrid gasoline, rural route (IT)			IT0106	km	9,87E-02	0,00E+00		
142	Trasporti	Persone	Strada	Transport	People	Road	7B2	Autobus, diesel, percorso extra-urbano (IT)	Buses, diesel, rural route (IT)			IT0107	km	6,65E-01	2,91E-05		
143	Trasporti	Persone	Strada	Transport	People	Road	7B2	Autobus, metano, percorso extra-urbano (IT)	Buses, natural gas, rural route (IT)			IT0108	km	7,71E-01	1,21E-03		
144	Trasporti	Persone	Strada	Transport	People	Road	7B2	Motocicli a benzina, percorso extra-urbano (IT)	Mopeds, gasoline, rural route (IT)	Motorini/ scooter di cilindrata inferiore a 50 cc		IT0109	km	5,86E-02	8,86E-05		
145	Trasporti	Persone	Strada	Transport	People	Road	7B2	Ciclomotori a benzina, percorso extra-urbano (IT)	Motorcycles, gasoline, rural route (IT)	Motociclette di cilindrata superiore a 50 cc		IT0110	km	8,64E-02	7,93E-05		
146	Trasporti	Merci	Strada	Transport	Freight	Road	7B2	Autoveicoli leggeri, benzina, percorso extra-urbano (IT)	Light Duty Vehicles, gasoline, rural route (IT)	Piccoli camioncini	Trucks and vans	IT0111	km	2,13E-01	8,74E-06		

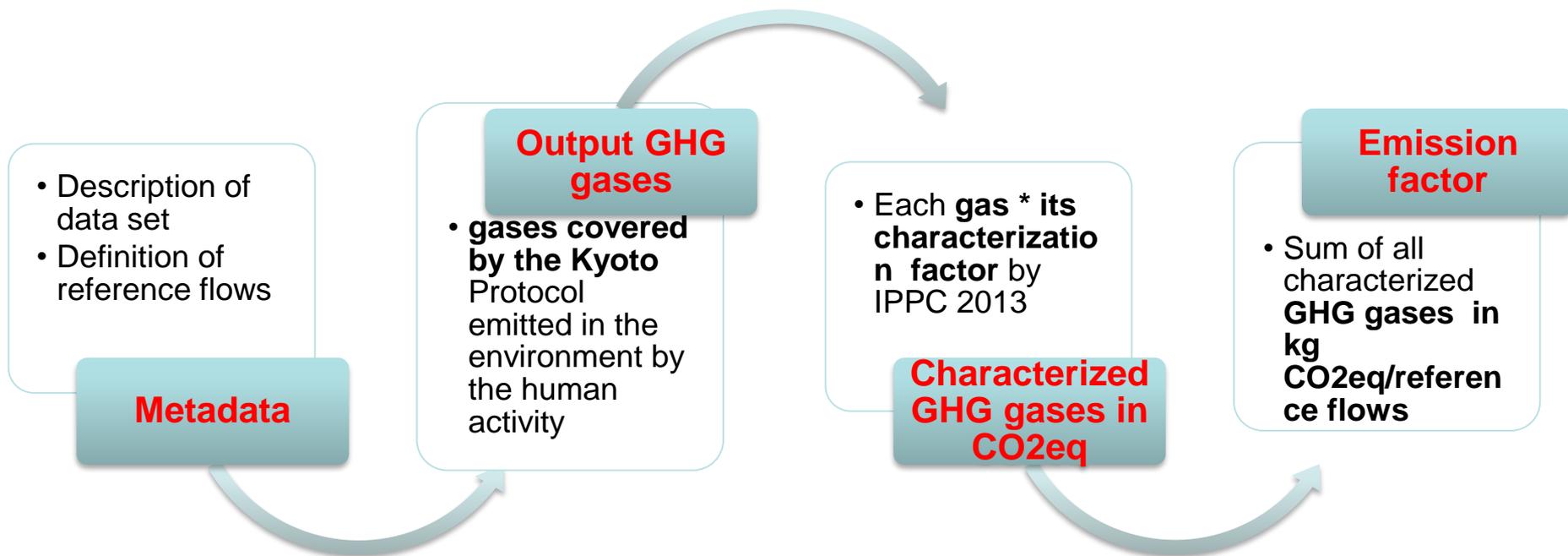
Category: National DB, Clim'Foot DB, CHF, PFC, GHG, Foglio1



Data Set description

Each emission factor data set represents unit process of human activity that exchanges with the environment GHG emission.

A data set quantifies and describes this activity in terms of emission factors. **The activity can be referred to process/good/service.**





Databases on the platform



After Login

Home > EF Databases > 5 Practical cases, during the Clim'Foot project > Practical case for Italy

Practical case for Italy

Italy has prepared 180 country-specific emission factors. The Italian National Agency for New Technology, Energy and Sustainable Economic Development (ENEA) has prepared 19 European emission factors. The following table shows the number of Italian emission factors per category.



You can download each National database in excel format

CATEGORY	NUMBER OF EFS
Fossil fuels consumption	43
Electricity consumption	2
Freight transport	16
Passenger transport	57
Chemicals	9
Waste	10
Agriculture	14
Fugitive emission from agriculture	29
TOTAL	180

You can search for emission factors



Search by category

Type a keyword -- Geographical localization -- -- Unit --

Electricity > Average electricity mix

Electricité (Electricity)	Source : ADEME : calcul normatif sur la base d'un accord national	0.053 kgCO ₂ e/kWh	> View details
Category : Moyenne du réseau	Origin : ADEME		
Electricité - mix moyen (Electricity - average mix)	Source : ADEME : calcul normatif sur la base d'un accord national	0.082 kgCO ₂ e/kWh	> View details
Category : Moyenne du réseau	Origin : ADEME		



Emission factors developed in the Clim'Foot project

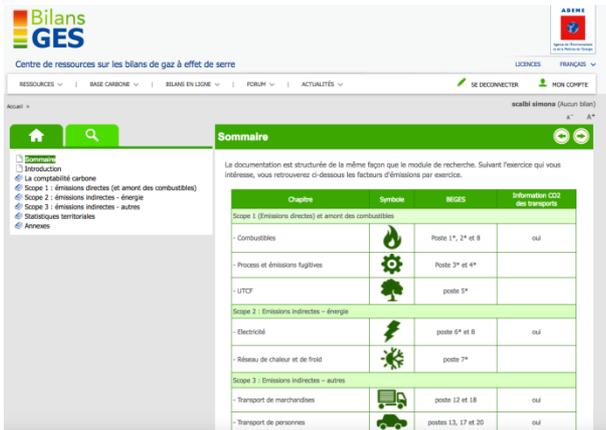




Reports on National Database construction

4 reports “National Database of Emission Factors” for Italy, Greek, Hungarian and Croatian was developed. They include :

- technical description for each sector,
- methodology,
- data sources,
- data quality and uncertainty analysis

Chapitre	Symbole	Information CO2 des transports
Scope 1 (Emissions directes) et amont des combustibles		
Combustibles		Poste 1*, 2* et 8
Process et émissions fugitives		Poste 3* et 4*
UTCV		poste 5*
Scope 2 : Emissions indirectes – énergie		
Électricité		poste 6* et 8
Réseau de chaleur et de froid		poste 7*
Scope 3 : Emissions indirectes – autres		
Transport de marchandises		poste 12 et 18
Transport de personnes		postes 13, 17 et 20

The French database was already developed before the Clim'Foot project - the Base Carbone® contains 2147 emission factors with a full documentation.

Data source used

The main source of the National database was the National Inventory Report in particular for Italy, Greece, Hungary and Croatian



Other sources

LCA Databases

- ✓ Gabi,
- ✓ ELCD,
- ✓ EPA,
- ✓ COPERT,
- ✓ Ecoinvent,
- ✓ Leap Database

EF Databases

- ✓ DEFRA
- ✓ EFDB - (IPCC – International)
- ✓ Base Carbone

Litterature data

Environmental Product Declaration - EPD studies



Identifying the list of EFs - different approaches

- **Greece, Italy and Croatia** have developed first the mandatory sectors and during the voluntary programme have added new EFs, where available, to fulfil the need of end-user.
- **Hungary** have identified before the need of the end-user and after developed Hungarian national databases.

What is expected?

Before training

After training

End-users

Questionnaire for end-users aiming to list potential EFs

-Questions related to Bilan Carbone sheets

Activity list and potential list of necessary EFs

HUNGARIAN NATIONAL EF LIST

HOI + BUTE

What is available in existing database? ELCD, NIR, Hungarian Central Statistical Office

What is necessary? – our proposal



Main results and consideration

The development of national DB requires a lot of time, **about 8 months 1 year.**

Advantages of the materials and tools developed by Clim'Foot project

- The use of the same methodology and format for DB creation has permitted to share EFs among the partners.
- The reports on “National Database of Emission Factors” have permitted to exchange information about the partners to answer at some issues on EFs calculation
- Who want create of new DB can start with a set of EFs jet developed and can concentrate only on new specific EFs for their country.



QUIZ

Which are the more populated sector in our DB?

- **RED: agriculture and LULUCF**
- **Green: Industrial processes and products**
- **Orange: transport and energy**



Thank you for the attentions

Contact: simona.scalbi@enea.it





CLIMATE GOVERNANCE: IMPLEMENTING PUBLIC POLICIES TO CALCULATE AND REDUCE ORGANISATIONS CARBON FOOTPRINT « Clim'Foot »

Final conference of the LIFE Clim'Foot project



The Bilan Carbone® Clim'Foot tool: an adaptation of the tool / EIHP's carbon footprint

Željko Jurić and Leila Luttenberger,
Energy Institute Hrvoje Požar (EIHP)

LIFE14 GIC/FR/000475
Paris – June 14, 2018





Content

- **Introduction – quiz**
- **Adaptation of the French Bilan Carbone[®] tool**
- **National database of emission factors**
- **Description of the Bilan Carbone[®] Clim'Foot tool**
- **Example - EIHP's carbon footprint calculation**
- **Conclusion**



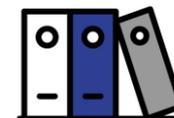
Quiz

- Could you guess **the annual amount of carbon footprint per employee for EIHP in 2017**, using national Bilan Carbone® Clim'Foot tool?
 - *more than 10 t CO₂e/employee*
 - *between 5 and 10 t CO₂e/employee*
 - *less than 5 t CO₂e/employee*



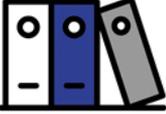
Adaptation of the French Bilan Carbone® tool

- **The main objectives of LIFE Clim'Foot project for Croatia:**
 - ***development of the national tool for CF calculation of organizations*** → translating and adapting the French Bilan Carbone® tool to the Croatian conditions
 - ***preparation of the national emission factor database and integration of database in the tool***
 - ***implementation of the national Bilan Carbone® Clim'Foot tool on at least 10 organizations***





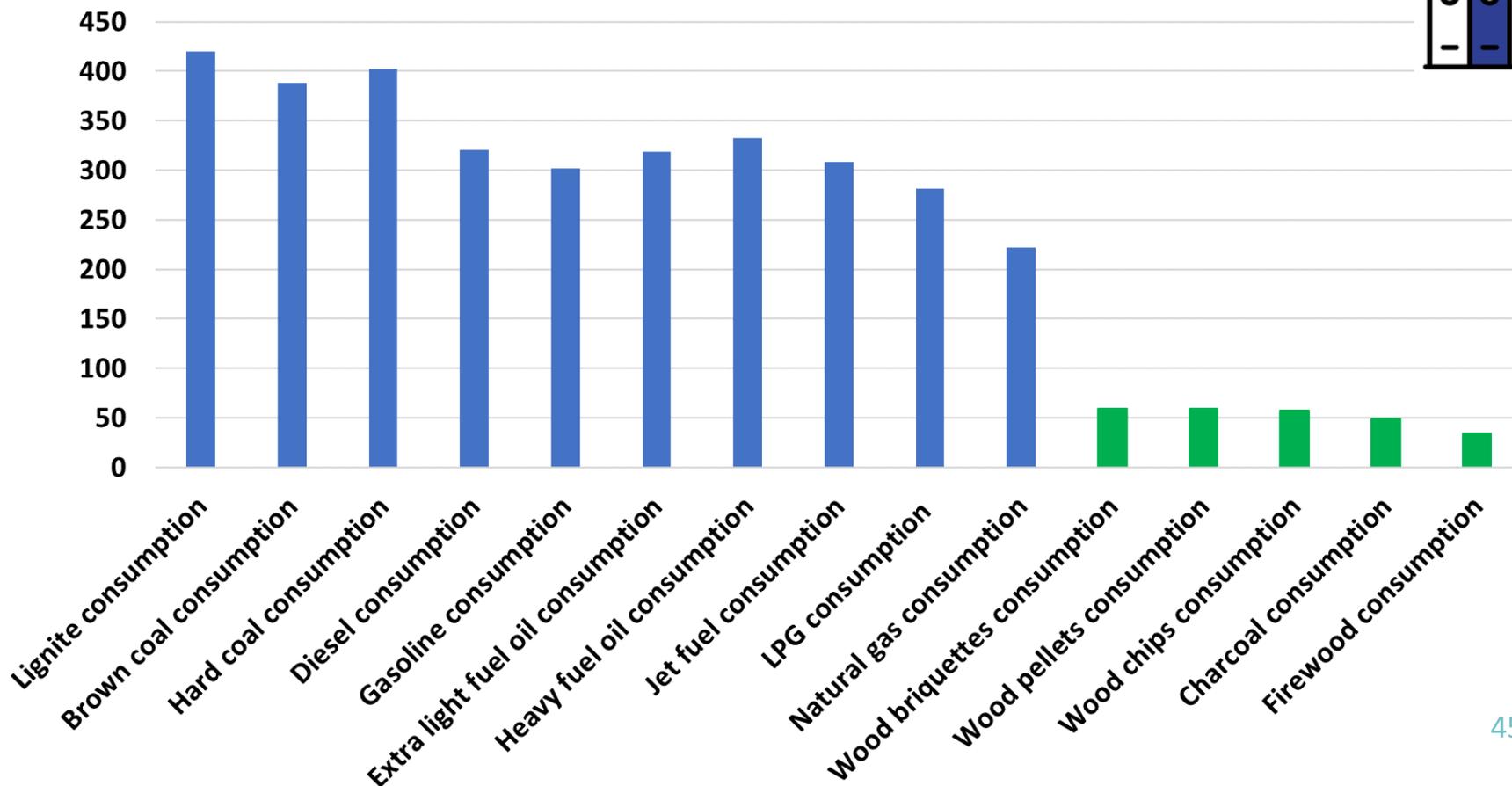
National database of emission factors

- Completion of the **National database** of emission factors (EFs)  is one of the **key project activities**
- National database (**172 national and 150 EU EFs**):
 - *subcontractor (EKONERG) has developed 132 country-specific EFs*
 - *EIHP has developed 40 country-specific EFs*
 - *EIHP has prepared 35 EU EFs*
 - *EFs are harmonised in accordance with ENEA's recommendations*
- Deliverable C2.2: Croatian database of EFs - **description of national emission factors**:
 - *methodology, technical description, method for determination of EFs, data quality and uncertainty analysis*



Examples of country-specific EFs

Emission factors (gCO₂e/kWh) for fossil and organic fuels - Croatia





ISO standards and GHG protocol

- The **principles, concepts and methods**, implemented in the tool, **follow the ISO standards** (ISO 14064 & ISO/TR 14069) and **GHG protocol**
- International standards define **3 scopes**:

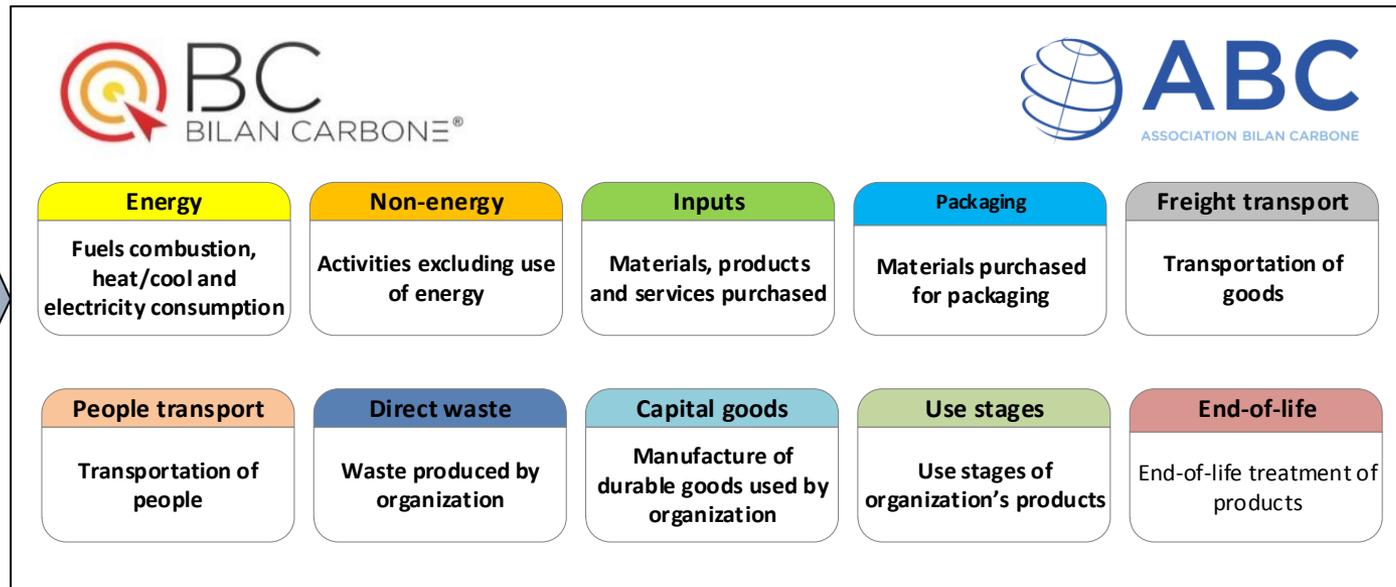
$$CF_O = DE_{S1} + IE_{S2} + IE_{S3}$$

- CF_O – carbon footprint of organization (t CO₂e)
- DE_{S1} – **direct GHG emissions** (t CO₂e) - occur on-site (Scope 1)
- IE_{S2} – **indirect GHG emissions** (t CO₂e) - occur off-site, **consumption of electricity, heating/cooling** (Scope 2)
- IE_{S3} – **indirect GHG emissions** (t CO₂e) - occur off-site, **connected to flows of people and materials** (Scope 3)





Bilan Carbone® Clim'Foot tool



Activity data

Emission factors database

ISO 14069 reporting

Bilan Carbon overview

GHG Protocol reporting



Structure of the tool

■ Bilan Carbone® Clim'Foot tool:

- **Red sheets** – input of activity data, uncertainties and emission reduction targets per activity (short- and long-term)
- **Orange sheets** – emission factors and utilities (conversion of physical units, statistical data...)
- **Yellow sheets** – results of calculation: CO₂e overview, GHG Protocol and ISO/TR 14069 extractions
- **Green sheet** - graphs



Description sheet of the considered site or activity

Bilan Carbone® reporting period / year	
Organisation Name	
Site Name	
Selected approach (ISO 14069 & GHG Protocol)	

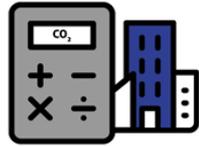


Emission sources title (can be changed)	To go to the tab	Tab names (CAN'T be changed)	Description of emission sources (can be customized)
Energy	Energy	Energy 1	Fossil fuels and electricity
Non-energy	Non-energy	Non-energy 1	Activities excluding use of energy
Inputs	Inputs	Inputs	Materials, products and services purchased
Future Packaging	Future Packaging	Future Packaging	Materials, products and services purchased for packaging
Freight	Freight	Freight	Transportation of goods
Transporting people	Transporting people	Transporting people	Transporting people
Direct waste	Direct waste	Direct waste	Waste produced by the entity
Capital goods	Capital goods	Capital goods	The manufacture of durable goods used by the entity
Use stages	Use stages	Use stages	The use stages of the product or service sold or distributed
End-of-Life	End-of-Life	End-of-Life	End-of-life treatment of products sold or distributed
Emissions Factors	Emissions Factors	Emissions factors	List of emissions factors used
Utilities	Utilities	Utilities	Utilities
CO ₂ e overview	CO₂e overview	CO ₂ e overview	Results in CO ₂ equivalent
GHG Protocol	GHG Protocol	GHG Protocol	Extraction of results for GHG Protocol reporting
ISO 14069	ISO 14069	ISO 14069	Extraction of results for ISO/TR 14069:2013 reporting
Graphs	Graphs	Graphs	Graphs with results in CO ₂ e



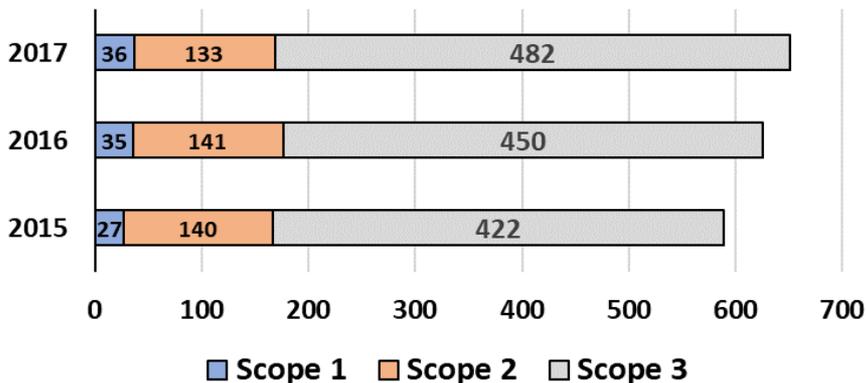
EIHP's CF for the period from 2015 to 2017

- The national Bilan Carbone® Clim'Foot tool was tested on the EIHP:
 - EIHP's CF for 2015: **589 t CO₂e** (number of employees: 78.5); 2016: **626 t CO₂e** (employees: 85.5); 2017: **651 t CO₂e** (employees: 88.5)
 - Scope 1: **4.6-5.7%**
 - Scope 2: **20.4-23.7%**
 - Scope 3: **71.7-74.0%**

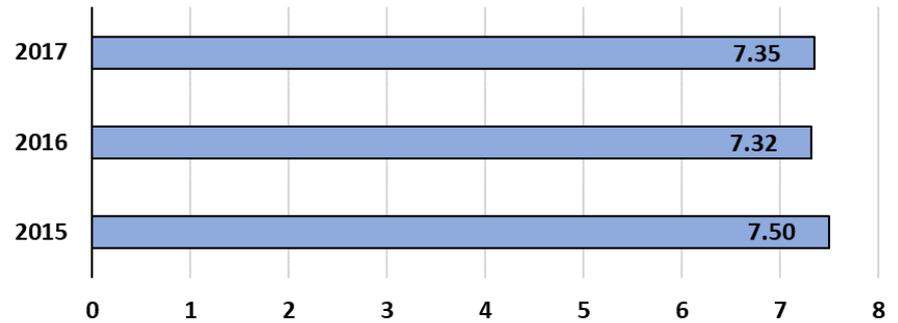


Answer on the quiz question!

EIHP's carbon footprint (t CO₂e)



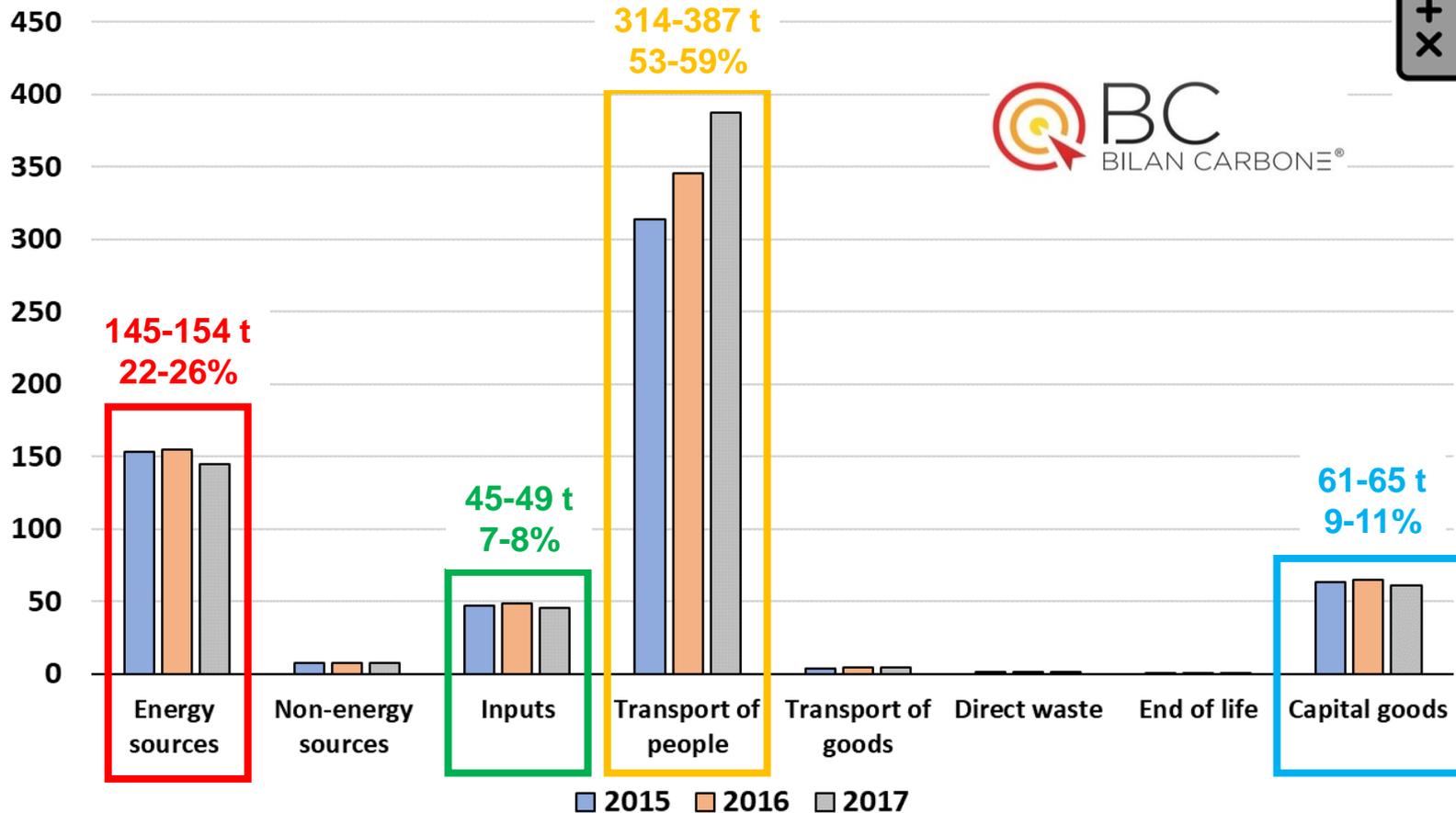
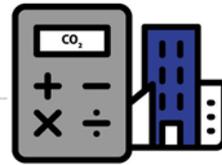
EIHP's carbon footprint (t CO₂e/employee)





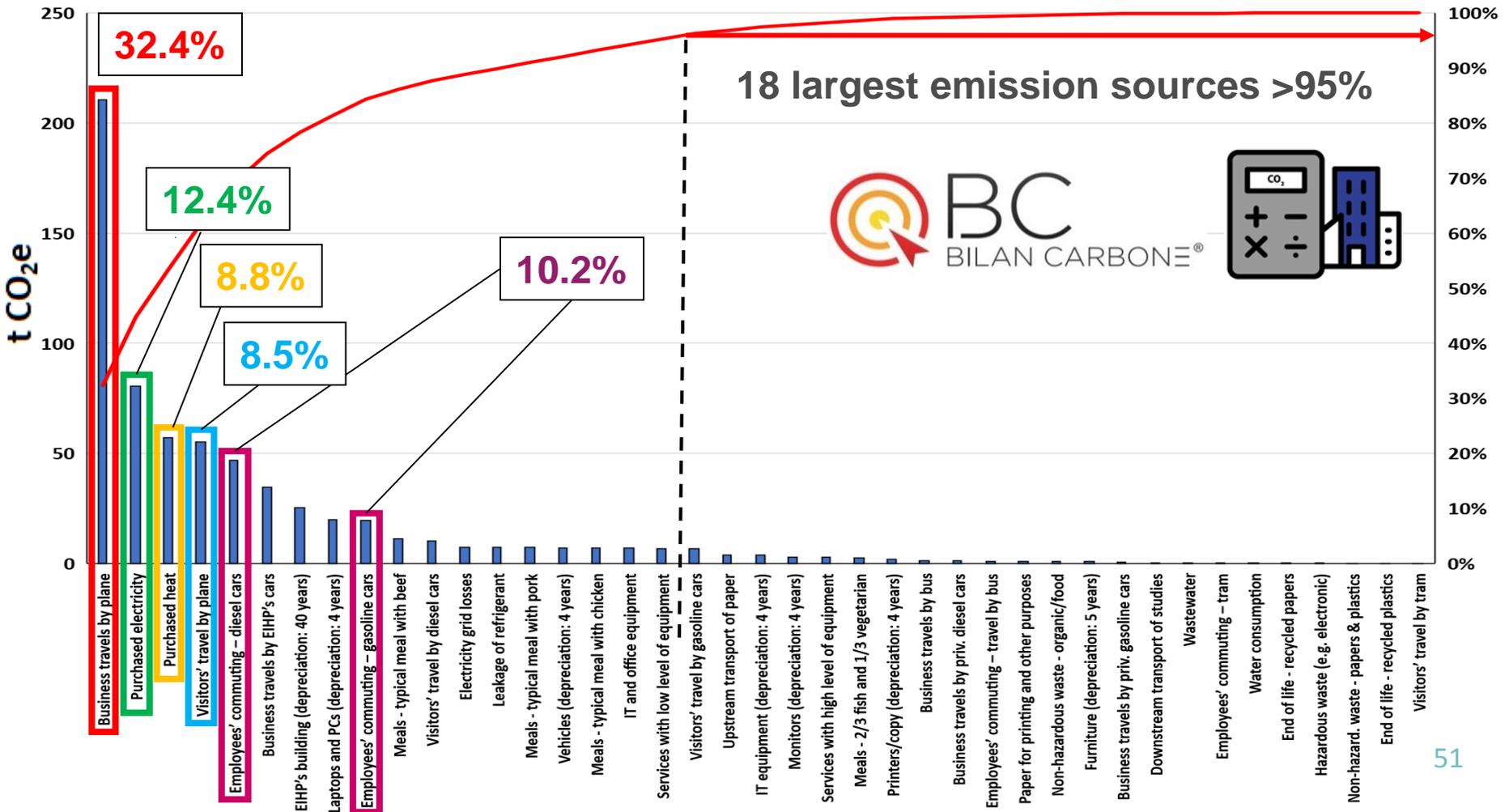
Contribution of source categories in EIHP's CF

EIHP's carbon footprint (t CO₂e)





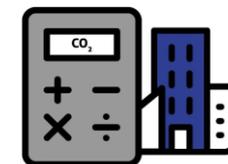
Key sources analysis of EIHP's CF for 2017





Conclusion

- **Goal: climate change mitigation**
 - **1st step: carbon footprint calculation**
 - to identify activities that significantly contribute to the GHG emissions
 - to choose a set of cost-effective measures for CFO reduction
 - **2nd step: preparation of the Action plan for carbon footprint reduction**
 - **3rd step: implementation of the Action plan**
 - GHG emission reduction and climate change mitigation
 - facilitate the fulfilment of the Paris agreement





Thank you for your attention!



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Zagreb, Croatia
zjuric@eihp.hr
www.eihp.hr



We have a choice!



CLIMATE GOVERNANCE: IMPLEMENTING PUBLIC POLICIES TO CALCULATE AND REDUCE ORGANISATIONS CARBON FOOTPRINT « Clim'Foot »



Final conference of the Clim'Foot project *Trainings*

François Kornmann - IFC

Lóránt Riesz – HOI

LIFE14 GIC/FR/000475

Paris – June 14, 2018





QUIZ

What seemed to be difficult parts of the CFO for the participants during the trainings?

Red: Very difficult

Green: Pretty easy

1. To identify perimeters of an organisation
2. To understand the principles and the steps of CFO
3. To use the Bilan Carbone Clim'Foot Tool



Trainings preparation





Trainings preparation



On-line



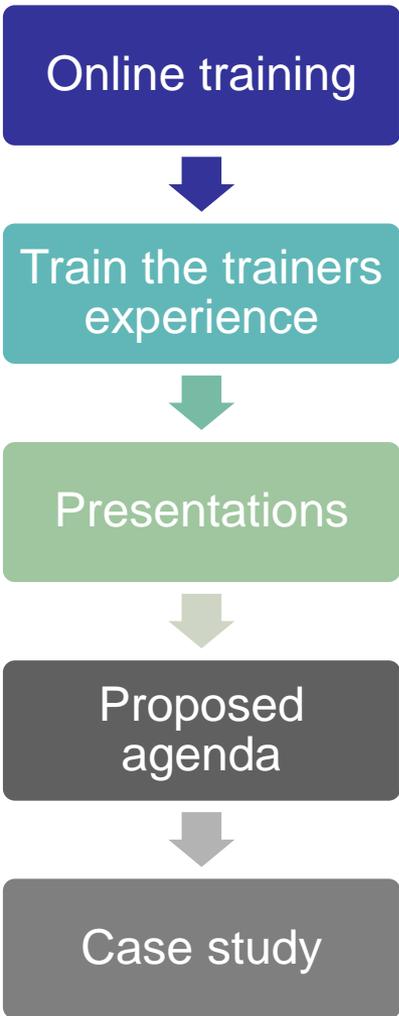
Train the trainers



End users training

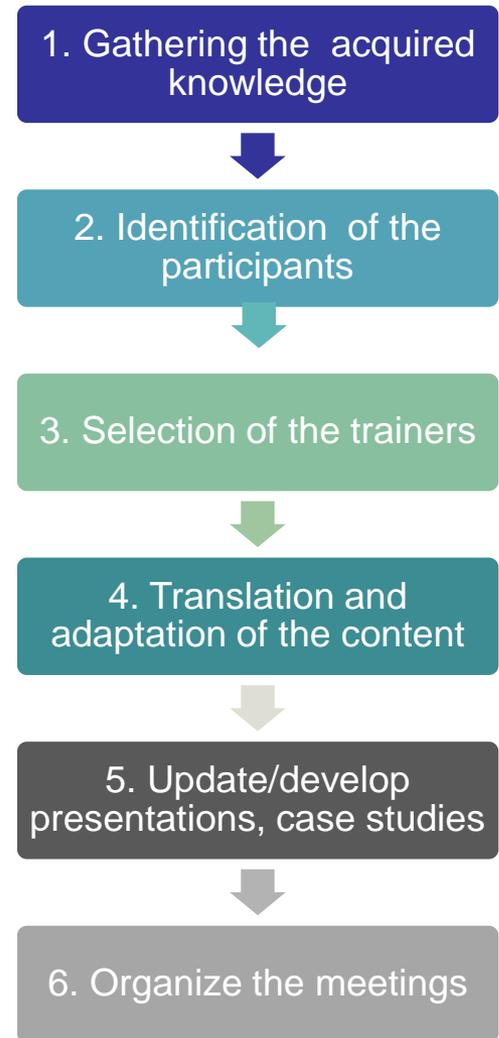


Preparation of end-users' trainings



Training materials provided by IFC

Adapted training materials by partners

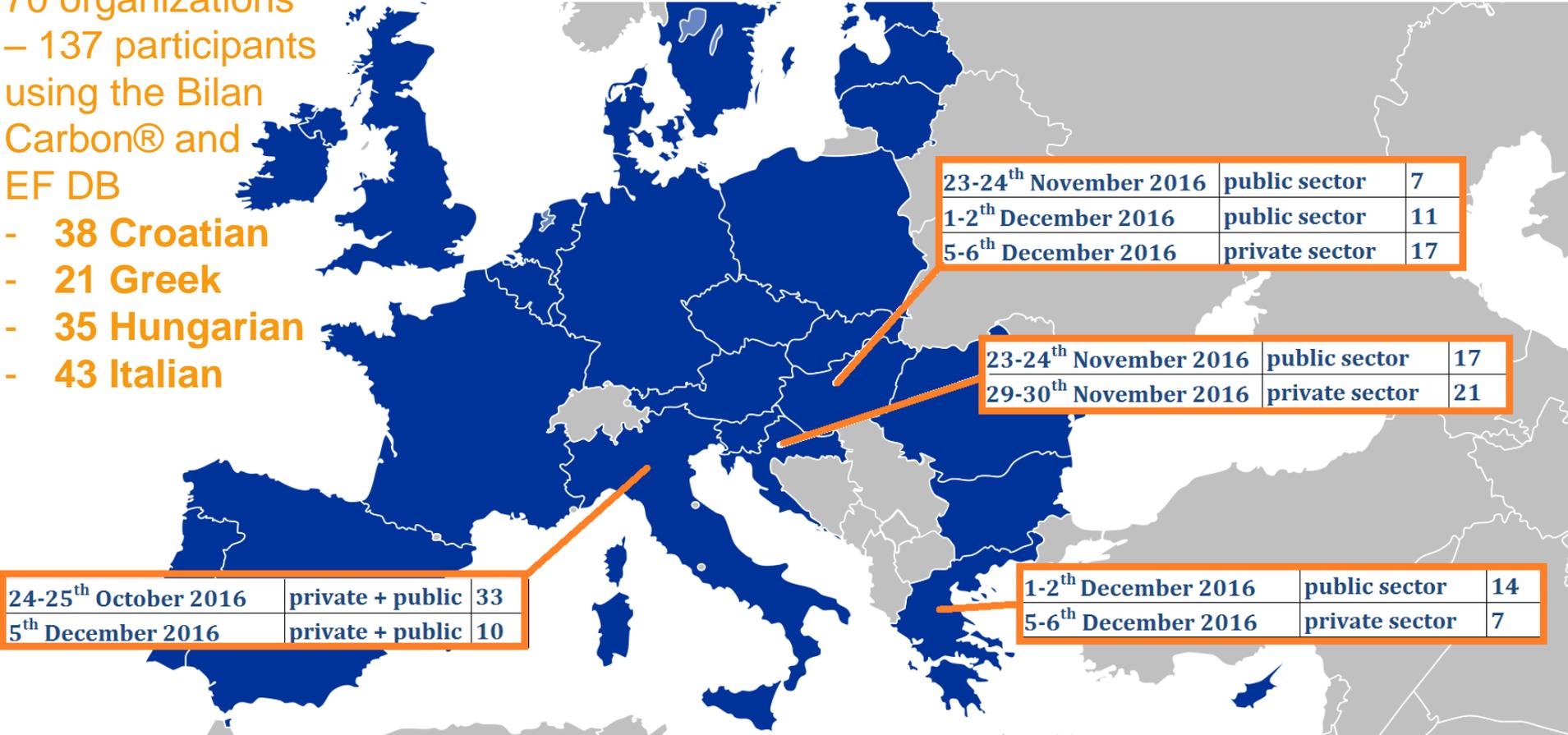




End-user trainings technical details

70 organizations
 – 137 participants
 using the Bilan Carbon® and
 EF DB

- 38 Croatian
- 21 Greek
- 35 Hungarian
- 43 Italian





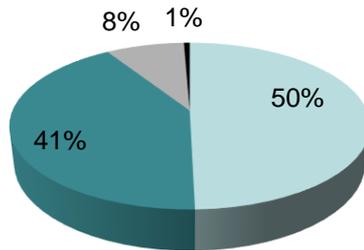
Our experience



End-users' evaluation

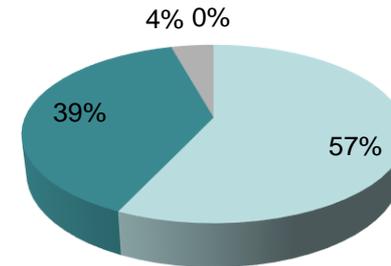
Quality of the content

Very good Good Medium Not good



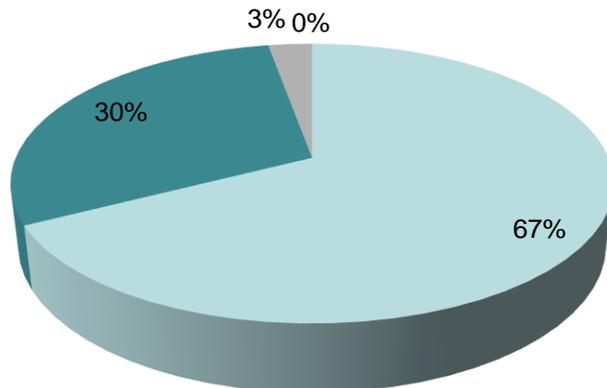
Expertise of the trainers

Very good Good Medium Not good



Overall evaluation

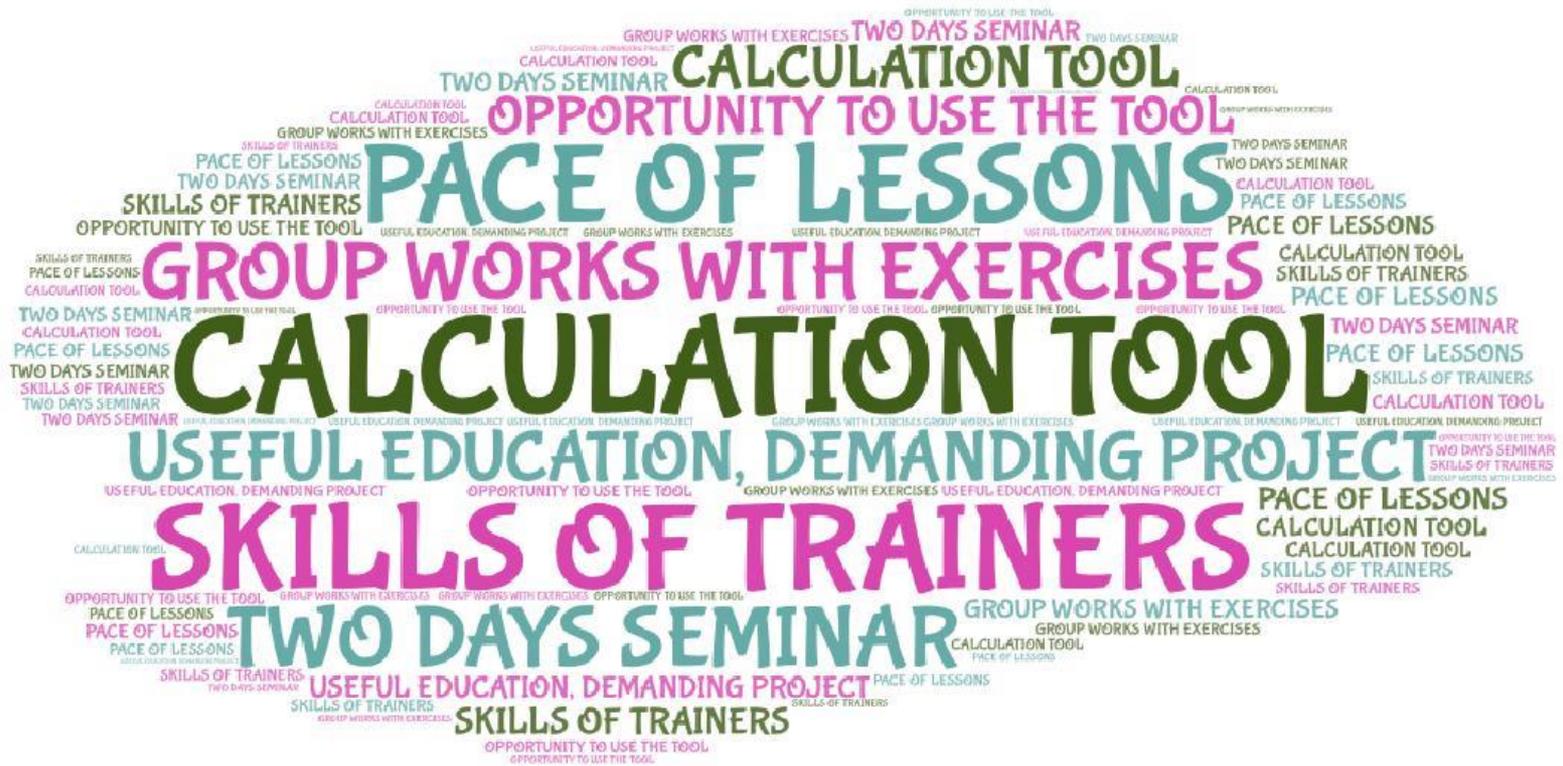
Very good Good Medium Not good



	Absolutely	Partially agree	Not really	Not at all
Understanding the principles, Steps of CFO, Results of CFO, Actions to reduce CFO	58%	38%	4%	0%
Using Bilan Carbone	24%	54%	18%	3%
Able to prepare first CFO	22%	57%	21%	1%



End-users' feedbacks - Strengths





Thank you for your attention!

For further information:

<http://climfoot-project.eu/en/trainings-developed-clim'foot-project>

François Kornmann – IFC, francois.kornmann@if-carbone.com

Lóránt Riesz – HOI, riesz.lorant@hoi.hu



CLIMATE GOVERNANCE: IMPLEMENTING PUBLIC POLICIES TO CALCULATE AND REDUCE ORGANISATIONS CARBON FOOTPRINT « Clim'Foot »



Voluntary programmes

LIFE14 GIC/FR/000475
Paris – June 14, 2018

Louiza Papamikrouli – CRES





Opportunities from joining the voluntary programme

What is the main opportunity for organizations joining the voluntary programme?

Potential certification according to international standards

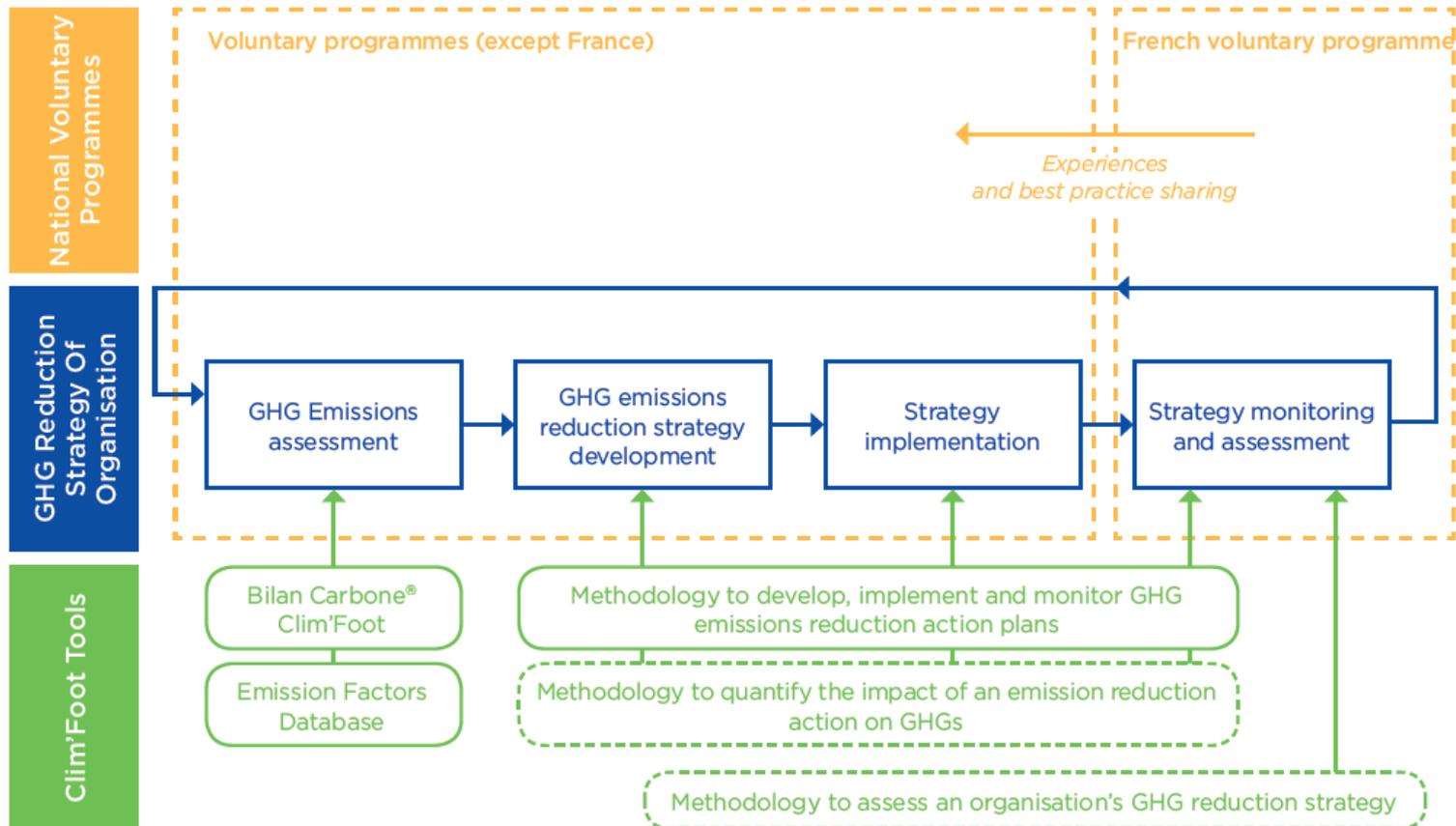
Networking with similar organizations

Enhancement of public image and trade mark values/ improvement of CSR/ green publicity



Voluntary programmes in 5 different countries

Clim'Foot and the GHG reduction strategy





Elements of the voluntary programme in HR, HU, GR & IT

Selection of organizations (contact database and public “call for interest”) – decision matrix

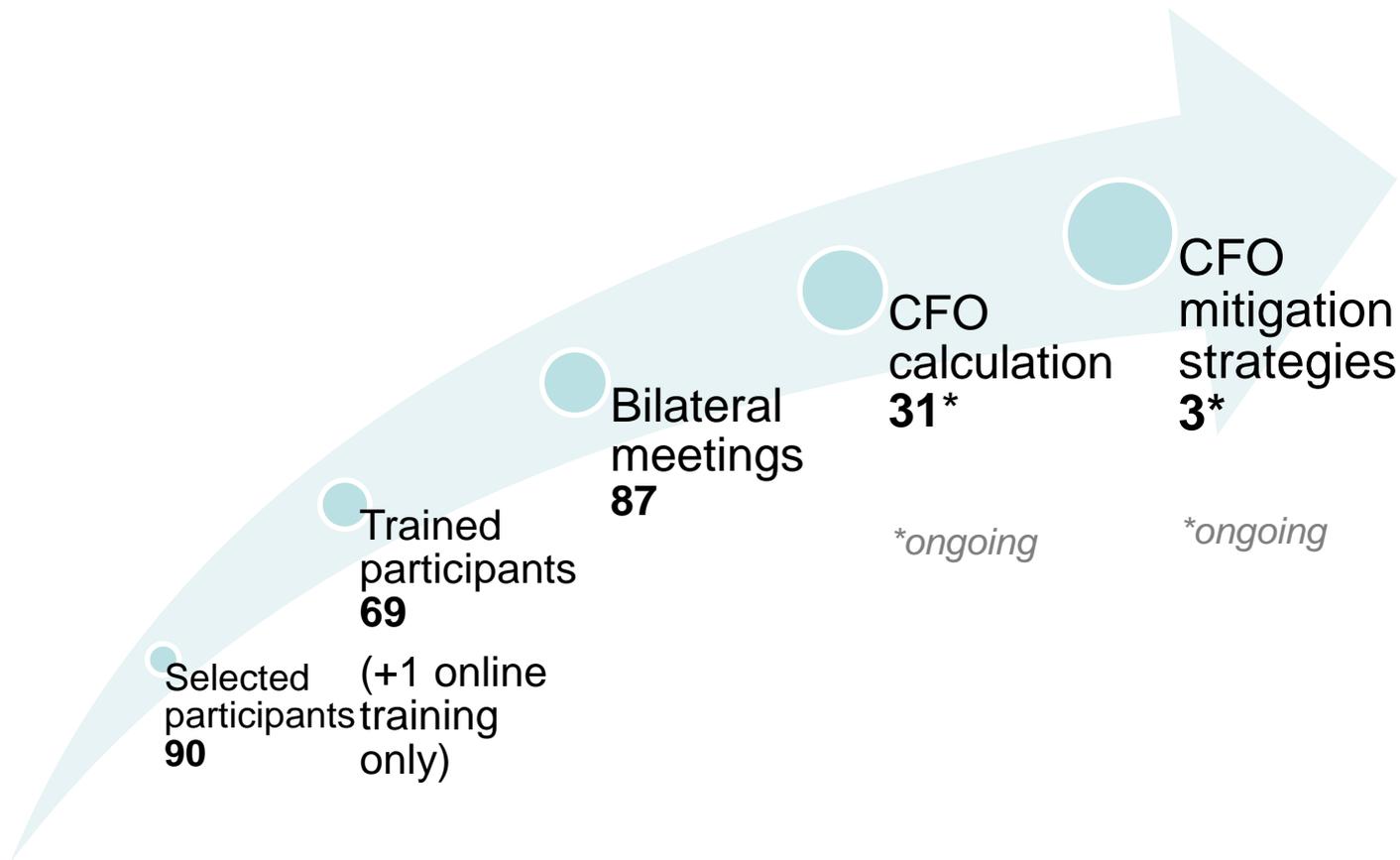
Training of organizations and consultants (8 – 10 hours courses in each country)

Technical support to the CFO calculation (perimeter identification, data collection, actual calculation)

Technical support to the setting/assessment of mitigation actions/plan definition

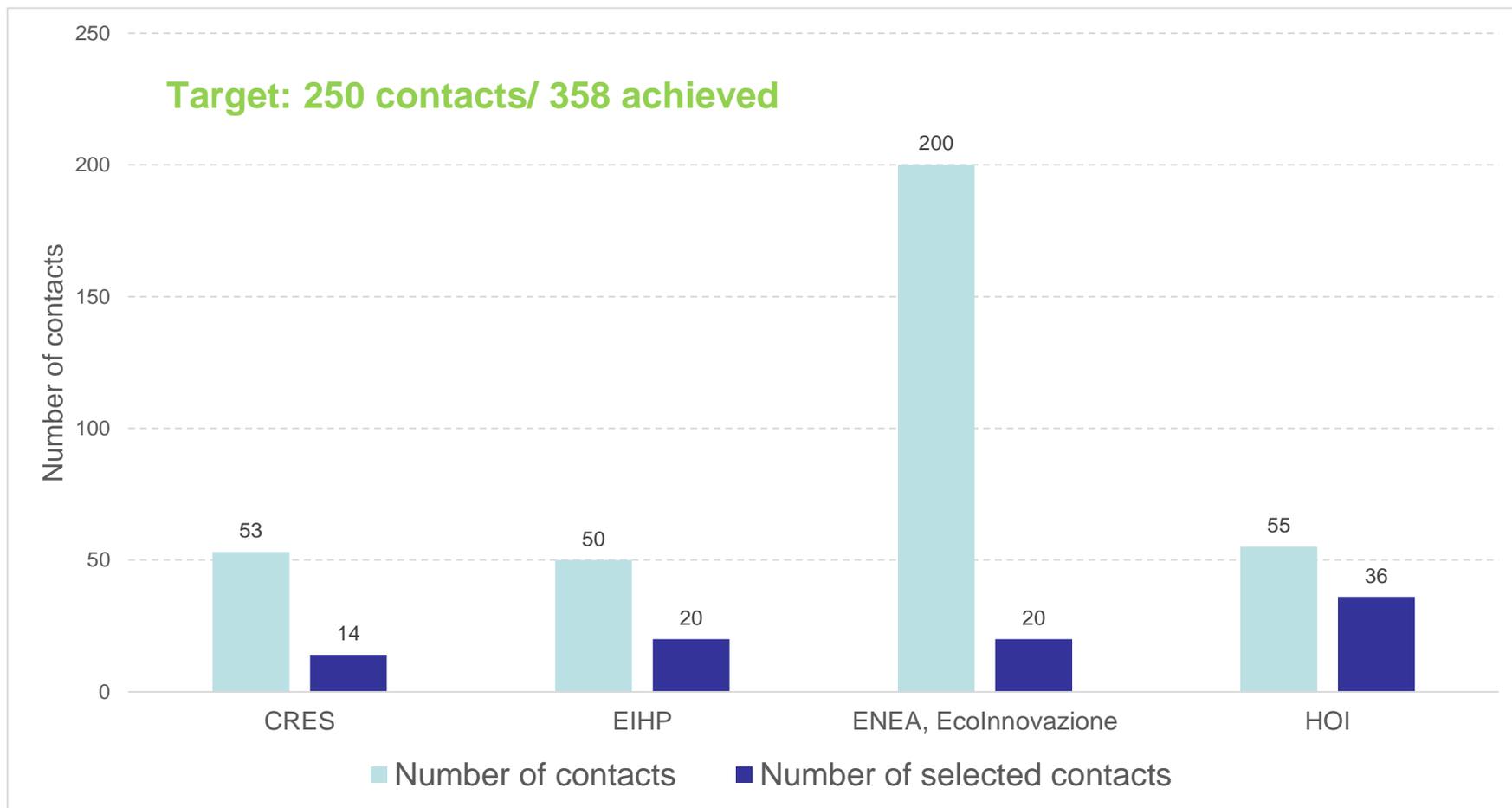


The voluntary programme at a glance



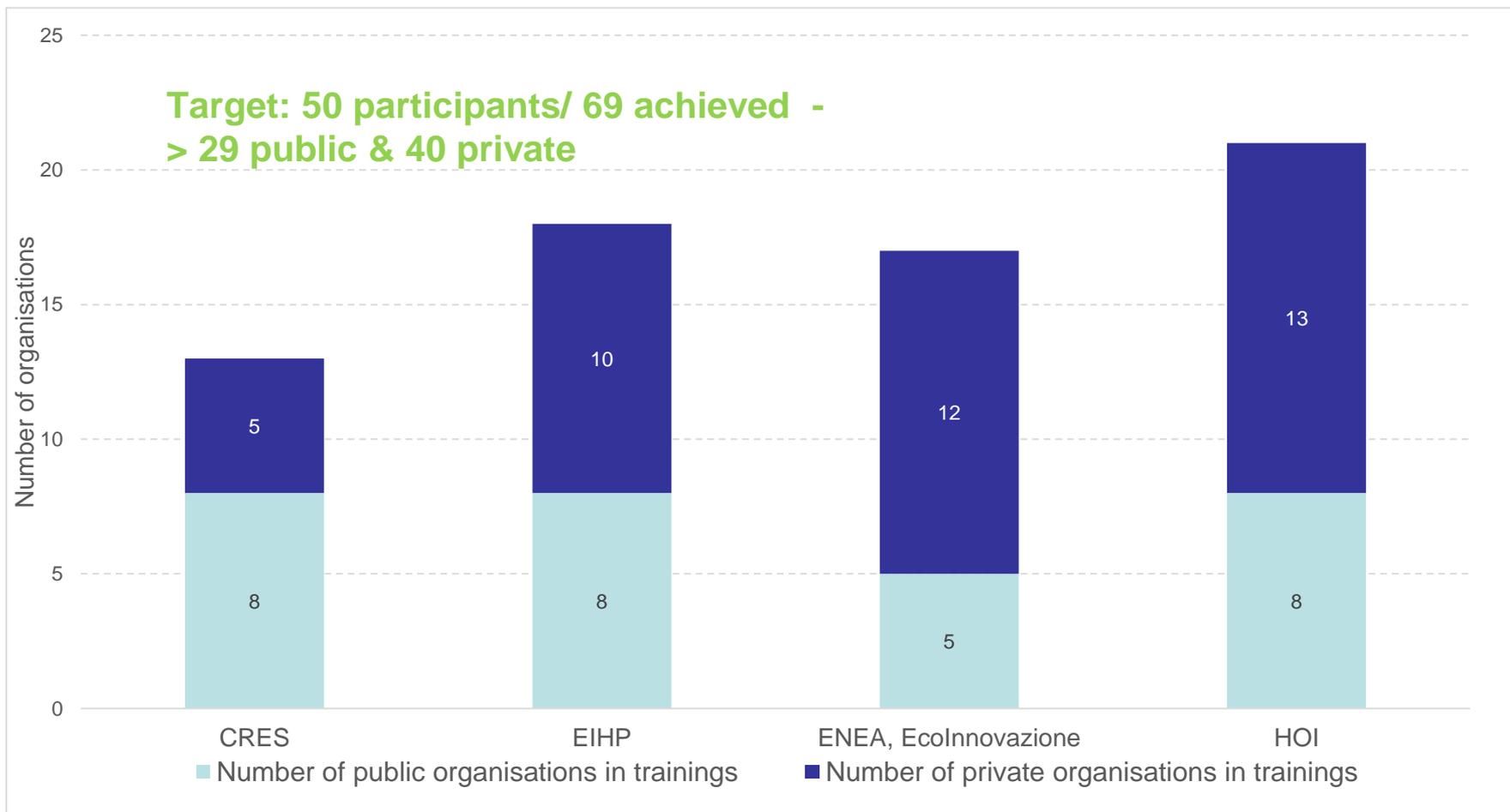


1. Selected participants per partner



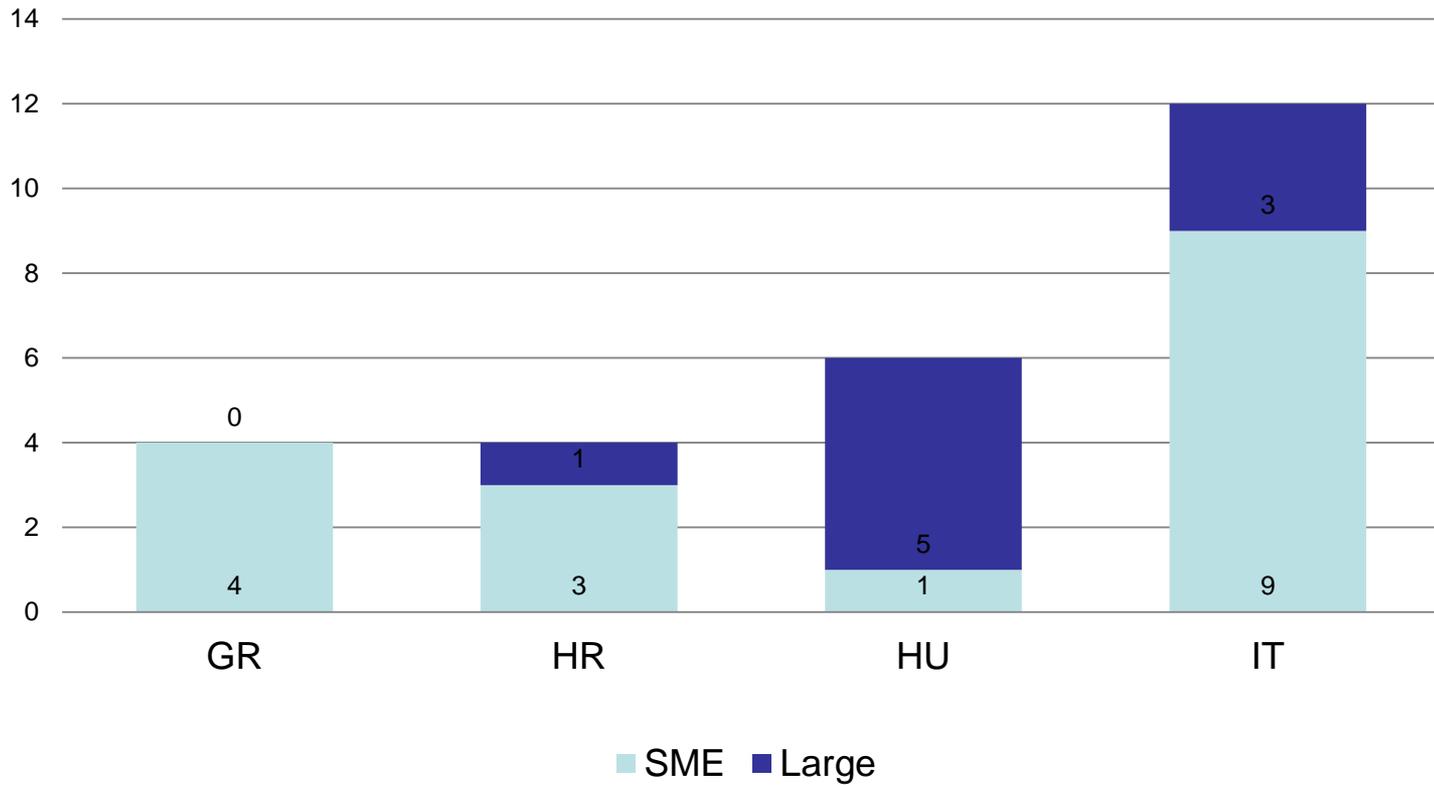


2. Total number of organisations in trainings





Types of private organizations – size



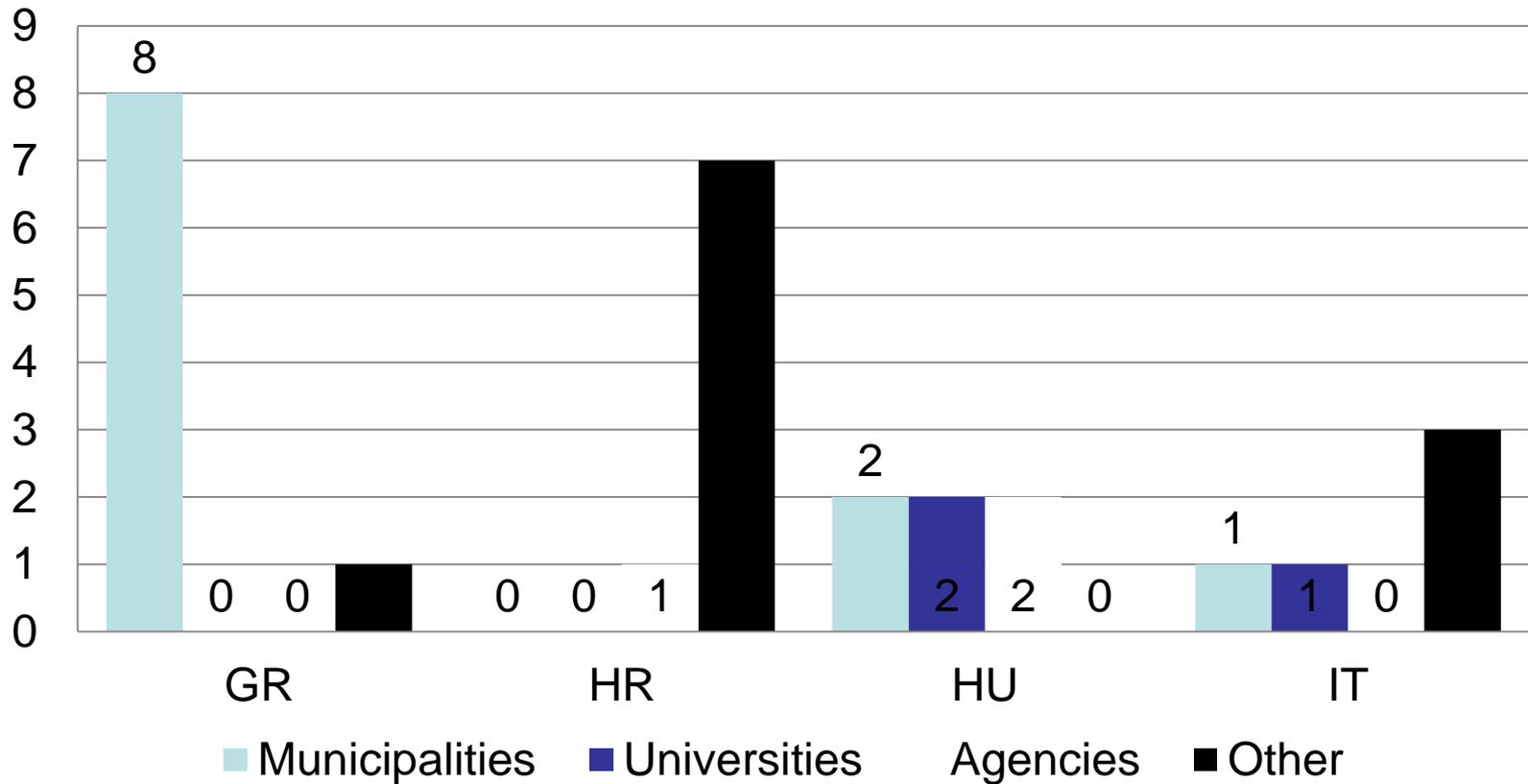


Types of private organizations – sectors

	SMEs	LARGE
HR	Energy and environmental consulting	Information and communication
		Electric industry
		Tourism
HU	Bioenergy	Industry (food, automotive plastic, pumps)
GR	Industry (food, aluminum)	
	Construction & management	
IT	Services	Pharmaceutical & cosmetic
	Construction	Packaging
	Pharmaceutical & cosmetic	Textile
	Agriculture	



Type of public organizations





3. Support through bilateral meetings & on site visits

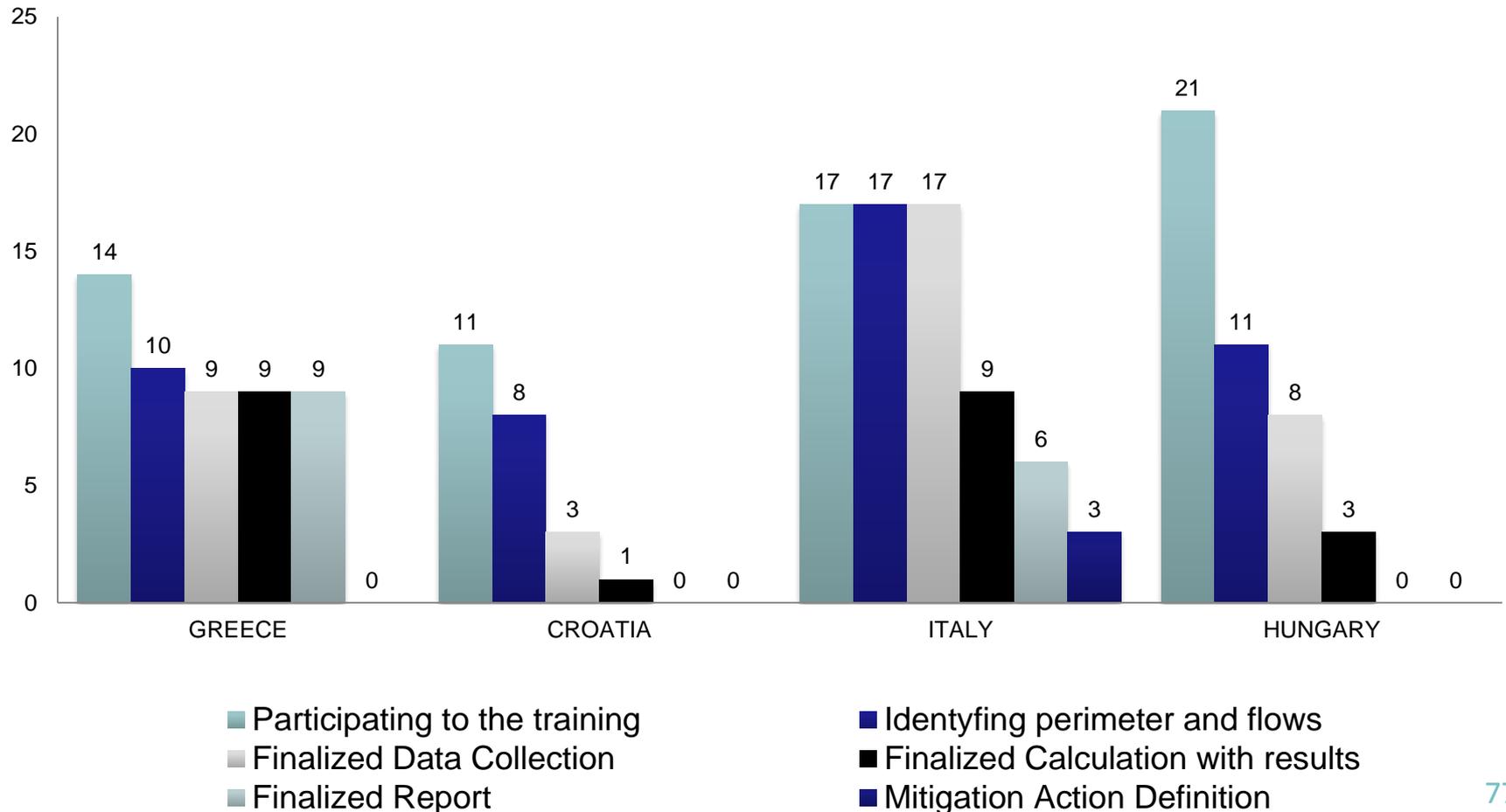


Important part of the Voluntary Programme to address difficulties





4. Involvement in the programme





Voluntary programme SWOT

Strengths

Private organizations

- Capacity building of personnel
- Customer request with relation to CFO
- Free internal monitoring tool

Public Organizations

- Usefully tool for the elaboration of SECAPs
- 1st step for environment protection and climate action

Opportunities

- Potential certification according to international standards
- Networking with similar organizations
- Enhancement of public image and trade mark values / improvement of CSR/ green publicity
- Adhering to regulation (FR)/ innovative actor (Europe)

Weaknesses

- Difficulty in data collection (particularly for public organizations)
- Time shortage
- Difficulty in the use of the tool by non expert/ trained personnel

Threats

- Timely process that needs constant support by management
- CFO does not lead to mitigations strategies/ actions



Further information

Thank you for your attention

Louiza Papamikrouli – CRES

For a country specific question:

Greece CRES, lpapamik@cres.gr

Croatia EIHP, zjuric@eihp.hr

Hungary HOI, riesz.lorant@hoi.hu

Italy ENEA, simona.scalbi@enea.it / Ecoinnovazione, smart-eco@ecoinnovazione.it

www.climfoot-project.eu



CLIMATE GOVERNANCE: IMPLEMENTING PUBLIC POLICIES TO CALCULATE AND REDUCE ORGANISATIONS CARBON FOOTPRINT « Clim'Foot »



Final conference of the Clim'Foot project

Edouard Fourdrin (ADEME)

LIFE14 GIC/FR/000475

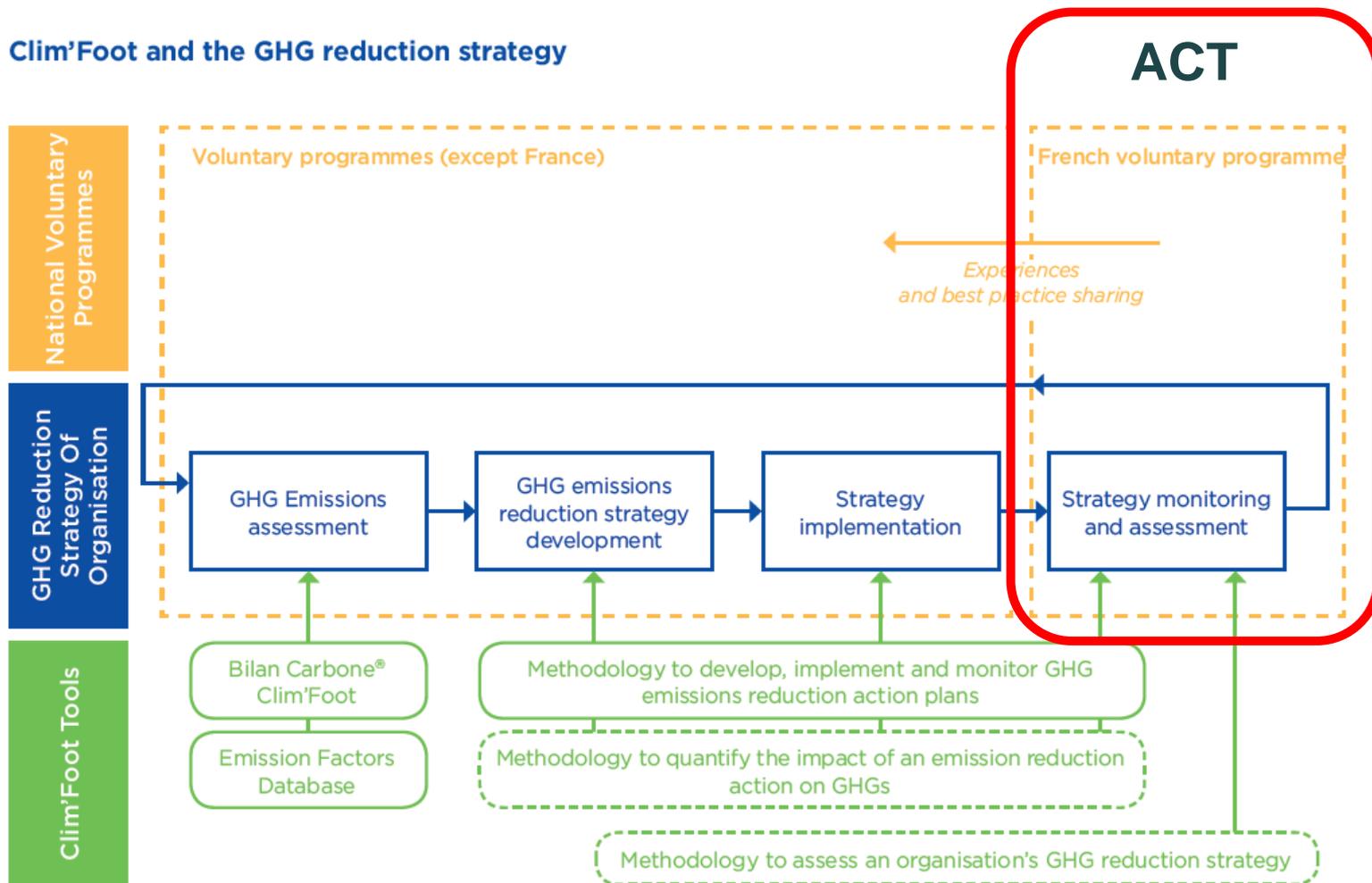
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French voluntary programme : ACT (Assessing low-Carbon Transition)

Clim'Foot and the GHG reduction strategy





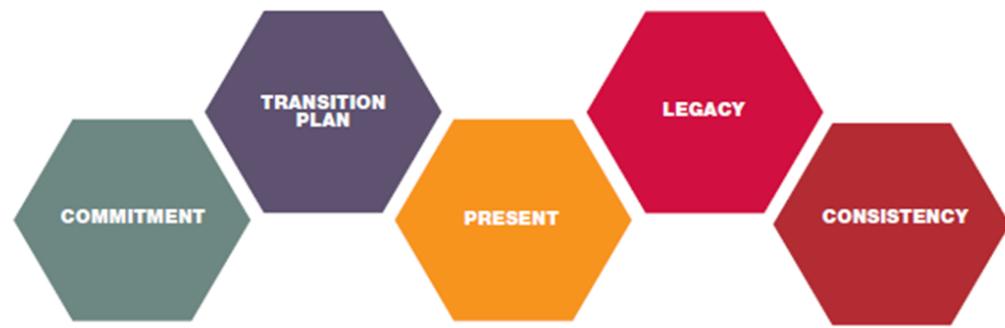
ACT - Principles and methodology

How can we know if a company is ready for the low-carbon transition?

- 1** What is the company planning to do?
- 2** How is the company planning to get there?
- 3** What is the company doing at present?
- 4** What has the company done in the recent past?
- 5** How do all of these plans and actions fit together?

9 Indicators packages	
1	Target
2	Material Investment
3	Immaterial investment
4	Product performance
5	Management
6	Supplier engagement
7	Client engagement
8	Public engagement
9	Business Model

4 criteria	
1	Business model and strategy
2	Business risks
3	Reputation
4	Consistency and credibility



- Available for:
- Electric Utilities
 - Automotive Manufacturing
 - Retail



French voluntary programme - Companies

Electric Utilities



Transport



Auto



Food & Beverage



Building



Retail



→ 13 SMEs

→ 17 mid cap companies

Trainings



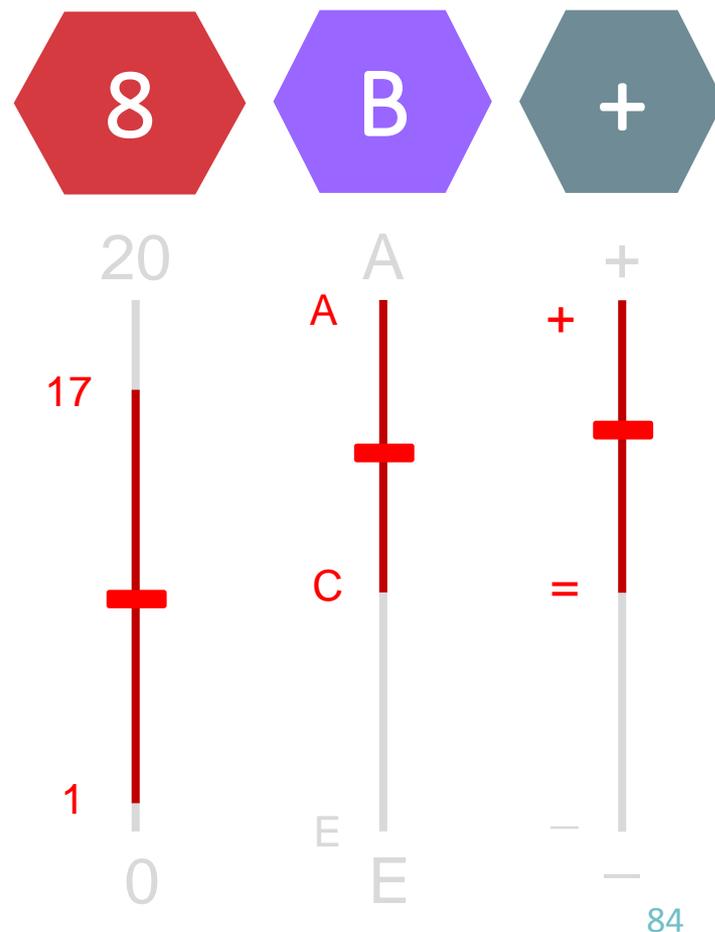
Expertise





French voluntary programme – Overall results

- ▼ Large amplitude on performance score :
 - Heterogeneous maturity
 - Large amplitude from one sector to another (from 6/20 to 16/20)
- ▼ Assessment score quite good
- ▼ Trend score
 - Opposite to performance score
- ▼ Assessment feedback contains an average number of 6 recommendations to progress





French voluntary programme – Example of transports

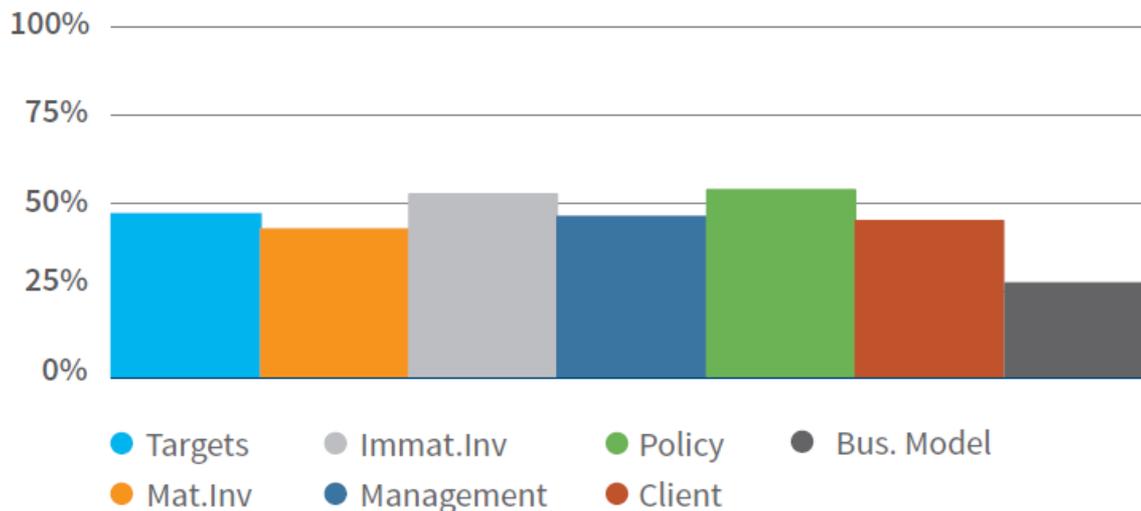


Figure 13: Average performance rating by module for the Transport sector

▼ The performance score is medium

- Companies have defined action plans (linked with french initiative on transport and climate)
- But there is no real strategy on carbon transition



French voluntary programme – Feedbacks

On the ground

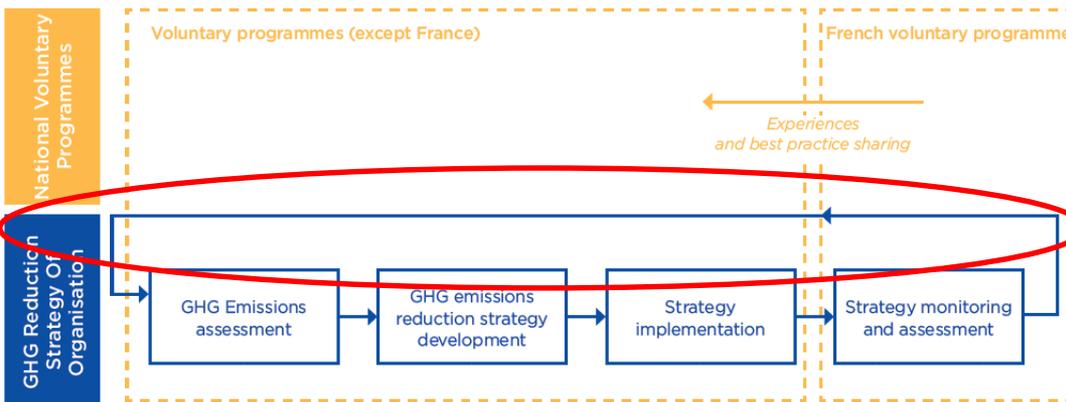
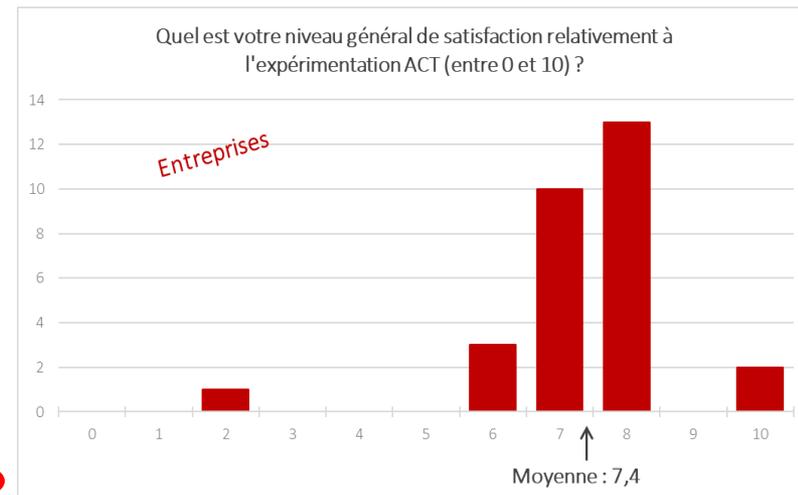
- 5 d.m per company / 4 d.m per consultant
- Strong expectation regarding recommendations and advisory support to progress on climate strategy after assessment

ACT Method

- Reflect a true picture of companies' climate strategy (79%)
- Is seen as a relevant progress standard (85%)

ACT Tools

- Operational and useful even if some fine tunings are need due to the infancy of the tools.
- Need more didactic materials



ACT – Perspectives

- ▼ Develop governance and business model(s)
- ▼ Launch of the ACT campaign (summer 2018)
 - Recruitment of 100 companies
 - Different levels of engagement for companies :
 - Assessment
 - Communication
 - Progression
 - Develop new sectoral methodologies
 - Involve more the financial sphere (investors)
- ▼ Development of new methodologies (building sector in 2018)
- ▼ Development of trainings (ABC)
- ▼ Launch of an ACT and DDPP project in Brazil and Mexico in 2019
- ▼ ...

Thank you

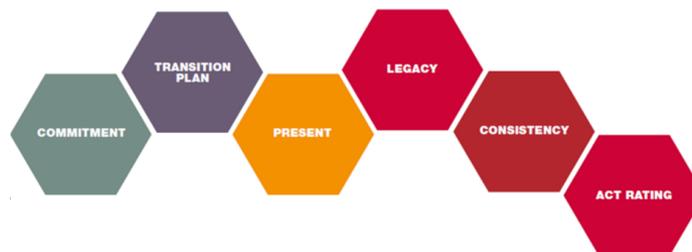
<http://actproject.net>

More information

@ademe: romain.poivet@ademe.fr & edouard.fourdrin@ademe.fr

@CDP: pedro.faria@cdp.net & lukas.brochard@cdp.net & esther.stoakes@cdp.net

ACT | ASSESSING LOW CARBON TRANSITION





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Final conference of the Clim'Foot project

LIFE14 GIC/FR/000475
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CLIMATE GOVERNANCE: IMPLEMENTING PUBLIC POLICIES TO CALCULATE AND REDUCE ORGANISATIONS CARBON FOOTPRINT « Clim'Foot »



The cooperation platform & the Clim'Foot community

Clémence Gracia (ADEME) & Jouairyatou Wague (ABC)

LIFE14 GIC/FR/000475

Paris – June 14, 2018





Demonstration

What can you find on this cooperation platform?

All the information about the project and 5 national emission factor databases ...

... and the Bilan Carbone[®] Clim'Foot tool, training material for supporting CFO calculation and action plan definition...

... and also new national databases from countries outside of the project



Material developed during the project

Free online training

Onsite training material

Emission factor databases

Methodology for building EF database

Free calculation tool

Methodology for assessing carbon footprint

Methodology for defining a reduction action plan

Information about our voluntary programmes

2 toolboxes: one for end-users, one for policy makers

Cooperation platform

Way to join us

One place: <http://www.climfoot-project.eu/>



Location of the toolboxes

Clim'Foot

en [Share icon]

CLIM'FOOT ▾ NEWS ▾ TRAINING ▾ EF DATABASES ▾ PROGRAMS ▾ ACTIONS! ▾ Search 🔍

HOME

CLIMATE CHANGE : INTRODUCTION AND KEY CONCEPTS ▾

FRAMEWORK AND OVERVIEW OF THE PROJECT

ACTIVITIES OF THE PROJECT

WHERE DO WE STAND?

POLICY MAKERS TOOLBOX

END-USERS TOOLBOX

PARTNERS ▾

LIFE PROGRAMME ▾

SITE MAP

GLOSSARY

Bloc news

Participate to our survey!

the final conference of the project!

Participate to our survey!

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What is the project?

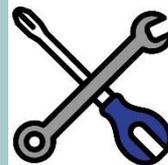
Clim'Foot is a European project to **calculate greenhouse gas emissions produced by companies and entities founded by programme LIFE 2014-2020.**



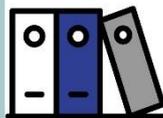
Description of the end-users toolbox



General information about climate change and carbon footprint



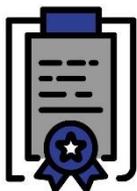
A guided tour of the Bilan Carbone© Clim'Foot tool



A description of the emission factors databases



Some advices to set up an action plan



Introducing the Clim'Foot trainings



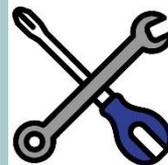
A brief overview of what you can do next



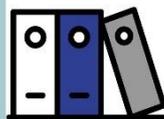
Description of the policy makers toolbox



What is climate change, and why am I concerned?



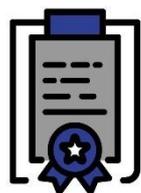
What kind of tool can I use?



How can I and should I build my own emission factors database?



What efforts should I ask from my stakeholders?



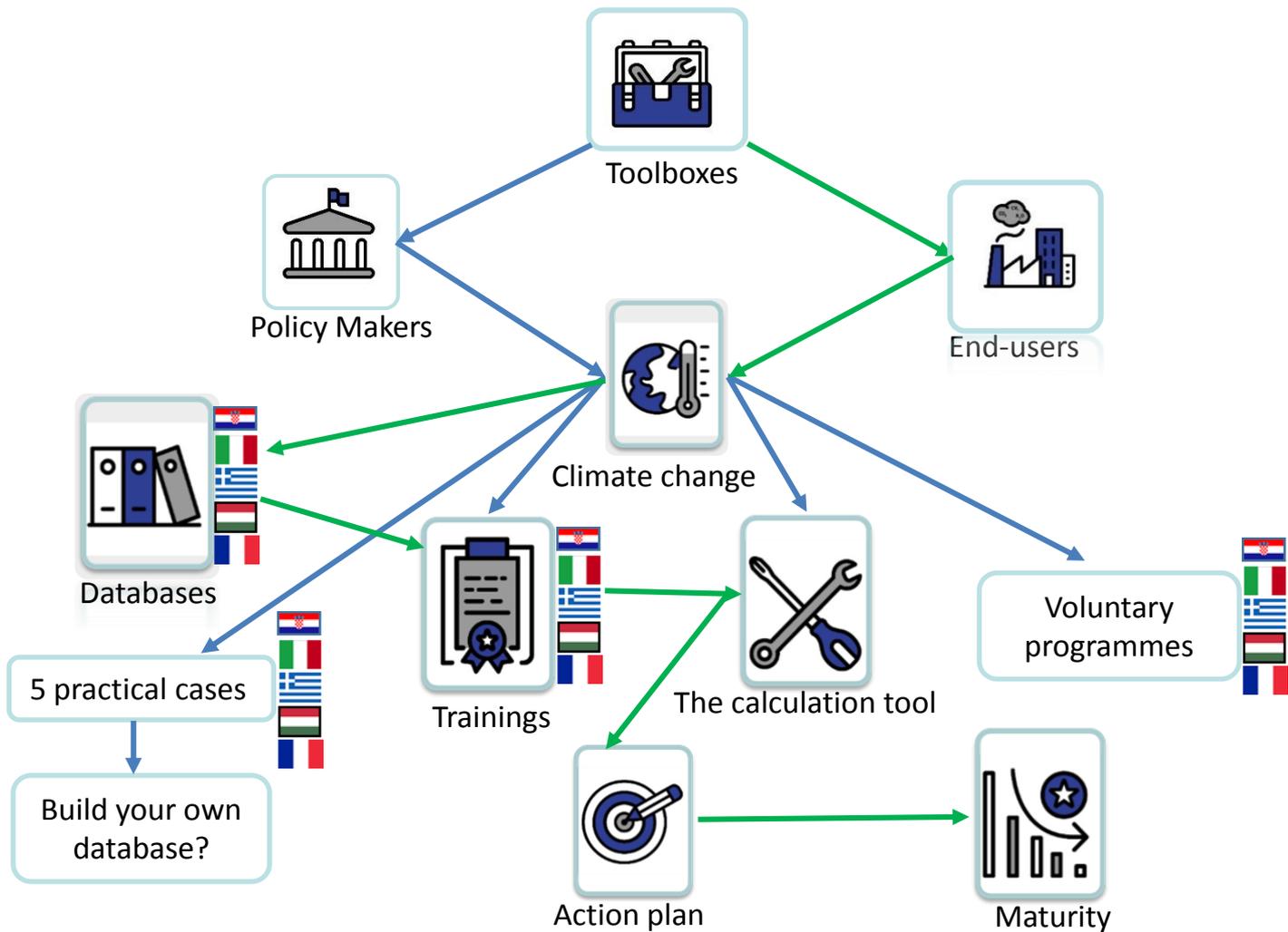
How can I train my stakeholders to do carbon footprint of organisation?



How can I assess the results and the strategies of my stakeholders?



A common ground with specific pathways





CONTENT

Clim'Foot

CLIM'FOOT ▾

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TRAINING ▾



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ACTIONS! ▾

en ▾



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The Bilan Carbone© Clim'Foot tool

Document(s)

 Bilan_Carbone_V7_Clim'Foot (xlsx)

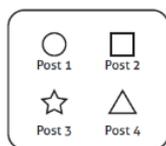
What to expect?

The Bilan Carbone© Clim'Foot tool is a CFO calculation tool, used during the Clim'Foot project. **It takes a picture of your organisation and is a mean to estimate its GHG emissions at a given moment.**

It is an excel file with several spreadsheets containing fixed data and cases to fill in:

- there are some spreadsheets to fill in according to the sectors and the organisation's activities (energy, transport, etc)
- one spreadsheet with the emission factors used for the calculation
- the final spreadsheets which display the results (one in CO₂eq, one according to GHG Protocol standard and the last one according to ISO 14069 international standard) and edit some graphs.

The Bilan Carbone© Clim'Foot is adapted to the project : easier to use than the classic Bilan Carbone© tool, and adjusted for a complete reporting of your emissions. It **takes into account all physical emissions, direct and indirect** (scope 1/2/3). All emissions are calculated using the Global Warming Potentials (GWP) and results are presented in CO₂ equivalent (CO₂eq). This format allows to identify the most carbon emitter posts for the organisation, and to be able to act against them !

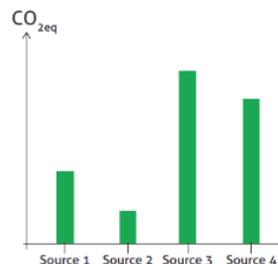


Organisation

Calculation with the

 Bilan Carbone©

 Clim'Foot tool



Principles of carbon accounting



For each part, a synthesis sheet was produced for policy makers

CLIM'FOOT PROJECT - SYNTHESIS FOR POLICY MAKERS - HOW TO BUILD AN EF DATABASE

How to BUILD an Emission Factor (EF) Database ?

STANDARDS FOR CARBON FOOTPRINT FOR PRODUCT AND ORGANIZATION

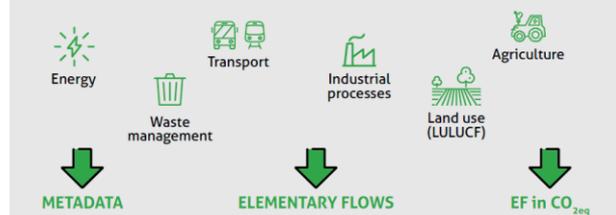


STANDARDS FOR LIFE CYCLE ASSESSMENT (LCA)
ISO 14040 ISO 14044

MAIN SOURCES OF DATA TO CONSTITUTE COUNTRY-SPECIFIC EF

- National Inventory and statistics Agencies
- National Sectoral Experts
- IPCC Emission Factors database
- International Experts or organisations publishing statistics (i.e. United Nations)
- Existing LCI databases
- Existing EF databases
- Life-Cycle Assessment study of sector associations
- Literature data and Environmental Product Declarations (EPD)
- Country-specific datasets from existing data (IPCC Emission Factor Database) or specific studies

PRIORITY SECTORS AND CATEGORIES CONSIDERED IN CLIM'FOOT DATABASES



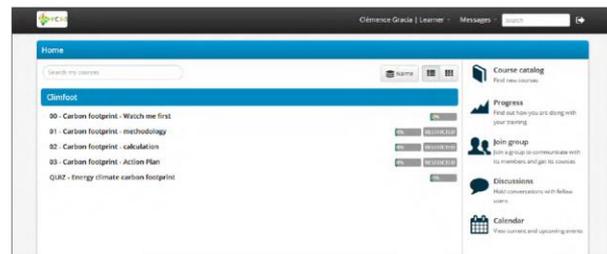
CLIM'FOOT PROJECT - SYNTHESIS FOR POLICY MAKERS - TRAININGS

Trainings

OBTAIN A RELIABLE QUANTIFICATION OF CARBON EMISSIONS & RELEVANT ACTION PLAN TO REDUCE THEM

TRAIN THE ORGANISATIONS	TRAIN THE POLICY MAKERS	TRAIN THE PARTNERS
<p>How to calculate organisation's carbon footprint</p> <ul style="list-style-type: none"> - Online sessions - Onsite sessions 	<p>Prepare the extension and pursuit of Clim'Foot in other European countries</p>	<p>Learn animation, techniques and methods specific to training for adults</p> <p>Dedicated to policy-makers to support the diffusion of the methodologies and tools in the participating countries</p>

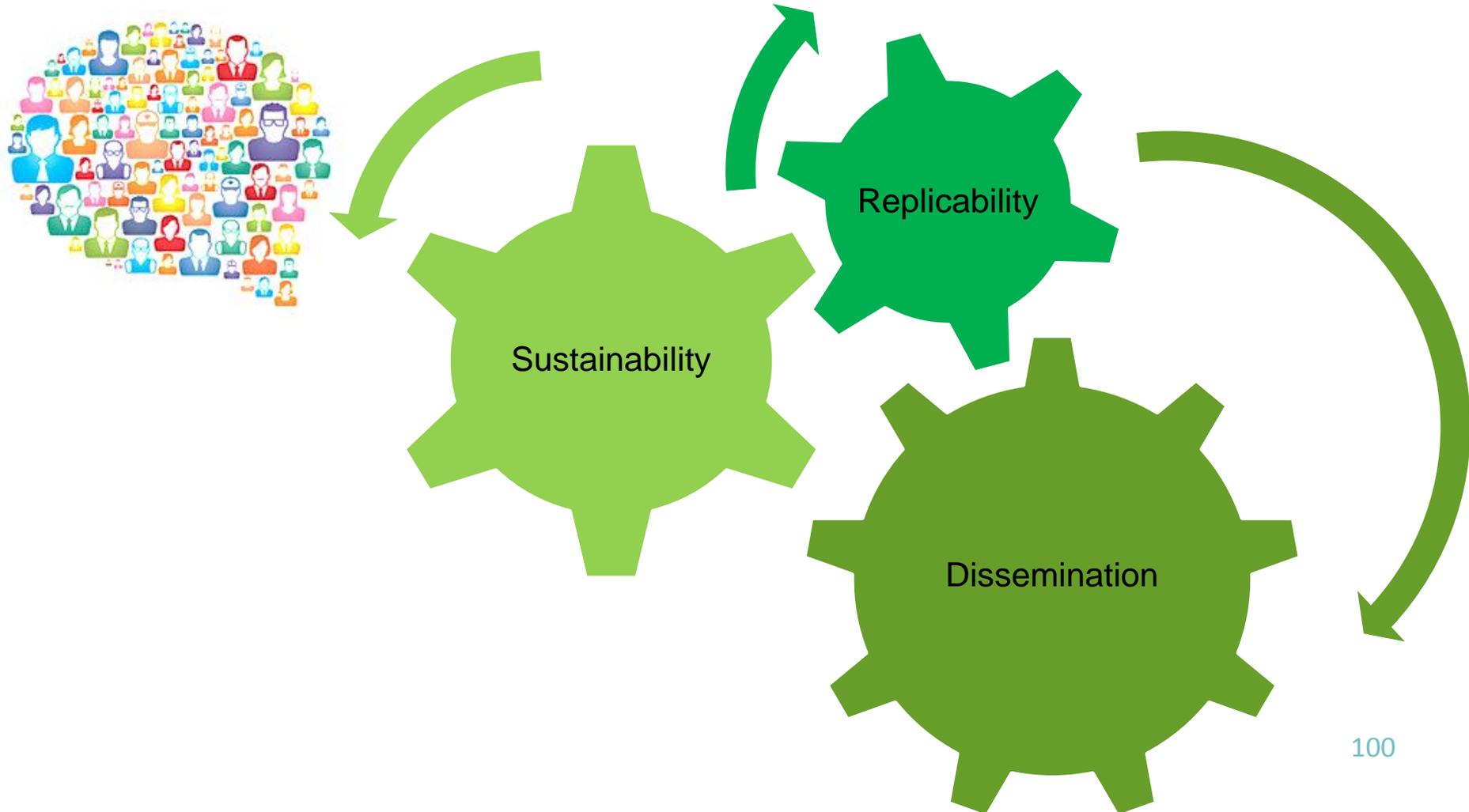
TRAIN YOURSELF ON AN ONLINE TRAINING PLATFORM, **IN FREE ACCESS !**



All the documents are downloadable on climfoot-project.eu !



Clim'Foot : and after?





Clim'Foot : and after?



What: creation of a community moving toward a network



Why: keeping a real dynamic and ensure a good replication of the project



Who: policy makers and stakeholders around this project



Clim'Foot : and after?

Foreseen activities in the community





Clim'Foot : and after?

- To share and have information:



@ClimFoot



Clim'Foot community: building a low-carbon Europe

<https://www.linkedin.com/groups/12120181>



The cooperation platform

<http://www.climfoot-project.eu/en>

- To ask question to the Clim'Foot project team: climfoot.contact@ademe.fr



What can you find on this cooperation platform?

All the information about the project and 5 national emission factor databases ...

... and the Bilan Carbone® Clim'Foot tool, training material for supporting CFO calculation and action plan definition...

... and also new national databases from countries outside of the project

SOON?



Grazie, ευχαριστώ, Hvala, Köszönöm, Merci

<http://www.climfoot-project.eu/>

**Clim'Foot project: a complete kit to act against
climate change**

**Are you interested in the Clim'Foot project?
Time to vote!**

