ENERGee Watch

2.1 | Results of the needs assessment survey

WP2 – Development of the content of the learning programme

February 2021

The ENERGee Watch project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement no. 892089.

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Preface

The overall aim of ENERGee WATCH is to launch an easy and replicable peer to peer learning program to enable regional and local authorities to timely and accurately define, monitor and verify their sustainable actions. The learning will focus on regional/provincial authorities and their agencies that are responsible for collecting and overseeing the monitoring of mitigation and adaptation measure indicators in order to empower them to make use of best practices. The learning programme is structured in four (4) Courses: i) data collection, ii) monitoring & verification, iii) indicators for adaptation to climate change, iv) data display, dissemination and validation by final users. ENERGee Watch will launch 4 Courses per year (one per each topic, twelve in total) with a total of 72 participating mentees. The learning program will entail tools, such as mentoring, site visits, tailored guidebooks and guided practice exchange will enable the proper matching of peer groups, and proper knowledge replication.

No	Participant Name	Short Name	Country Code	Logo
1	Institute for European Energy and Climate Policy (IEECP)	NETHERLANDS	NL	
2	European Federation of Agencies and Regions for Energy and the Environment (FEDARENE)	BELGIUM	BE	
3	Technoeconomics of Energy and Environmental Systems Laboratory – University of Piraeus (UPRC – Teeslab)	GREECE	GR	
4	Auvergne-Rhône Alpes Energy Environment (AURA-EE)	FRANCE	FR	
5	Energy Agency of Savinjska, Šaleška and Koroška region (KSSENA)	SLOVENIA	SI	
6	Ile de France Regional Energy and Climate Agency (IAU IDF)	FRANCE	FR	
7	3 Counties Energy agency (3 CEA)	IRELAND	IE	
8	Energy Agency of Plovdiv (EAP)	BULGARIA	BG	
9	Alba Local Energy Agency (ALEA)	ROMANIA	RO	
10	Cyprus Energy Agency (CEA)	CYPRUS	CY	

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Executive summary

To offer a targeted programme to local, regional authorities and their agencies. The Energee Watch project foresaw as one of its first activity to carry out a needs assessment exercise. A survey was launched at the end of 2020 to identify the needs and barriers, public authorities and their support organisations face in developing and monitoring their energy and climate plans.
The Energee Watch needs assessment survey had several objectives:

- Provide a detailed analysis of the needs of participants in each of the areas identified by the analysis of the Covenant of Mayors survey.
- Within each potential learning courses, identify the topics for which the respondents would need the most support.
- Define the delivery preferences of the learning programme.

The first overall analysis of the 53 answers from 42 organisations showed strong needs in most topics for each learning course. It led us to carry out an analysis per type of organisations to better understand the needs of each type of organisation and how to best meet these needs through the Energee Watch learning programme.

Courses and needs from different organisations.

The group of local authorities showed a **stronger need in Course 1 "Energy Data collection (acquisition and treatment)"** with an average percentage of 32,7%. Conversely, the target group of local authorities presents the least strong need for Course 3 ("Indicators and strategies on adaptation to Climate Change") with an average percentage of 29,8% of all participants representing a local authority. The group of energy agencies and provincial/regional authorities showed a stronger need in **Course 3 "Indicators and strategies on adaptation to Climate Change"** with an average percentage of 51,8%.

Topics within each group and interest from organisations

The analysis was split in 3 groups:

- Local authorities
- Provincial/regional authorities and energy agencies
- Other (consultants, NGOs)

For **the learning course 1 on Energy data collection (treatment and acquisition)**
For local authorities, the vast majority of the topics addressed in this course follow the same trends, meaning that there is substantial need for learning in these topics. The topic of "Transport" presents an exception to this by having 32% of all participants that expressed limited need for further learning. The topics that present the strongest need are the following:

- Data Management (36%)
- Waste (35%)
- Technical tools and calculation methods for data analysis (35%)

While for provincial/regional authorities and energy agencies results show different trends. First of all, they show less needs for capacity building in these topics than local authorities and the most needed topics are also very different:

- Transport (59%)
- Strategy and Framework for Energy and Climate targets (50%)
- Private Buildings/Energy Renovation/Energy Poverty (50%)

For **learning Course 2 on Monitoring, Reporting, Verification: follow-up of implementation of actions**

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For local authorities, all the topics addressed in this course are characterised by a strong need for further learning and in particular the following ones:

- Reporting (35%)
- Internal Capacity (31%),
- Data quality is following (28%) and the least strong needs are reported by local authorities when it comes to developing indicators and monitoring (27%)

While the energy agencies and provincial/regional authorities prove to have less need for further learning in this course than local authorities and the most needed topics are also very different:

- Developing indicators and monitoring (56%)
- Data quality (53%)

For **learning course 3 on Indicators and strategies on adaptation to climate change**
Many of the topics addressed in this course follow the same trends, meaning that there is substantial need for learning in these topics for local authorities. It is noteworthy that local authorities expressed by 50% no need for further learning regarding the topic of "Development of climate adaptation indicators for diagnosis and assessment". They also stated no need by 30% when it comes to "tools and methods facilitating the development of a climate adaptation plan".
The most needed topics are:

- Space planning of the challenges: pressure or cooperation on environments and between stakeholders (32%)
- Governance and response plan to be put in place for your community (31%)

The energy agencies and provincial/regional authorities present limited needs in further learning across all topics of this course. Specifically, for the categories of "Development of climate adaptation indicators for diagnosis and assessment" and "Climate adaptation solutions investigation" they present much stronger need for further learning, when compared to the percentage of the "No need" answers.

- Climate adaptation solutions investigation (56%)
- Tools and methods to facilitate the development of a climate adaptation plan (56%)

For the **learning course 4 on Data display, dissemination and validation by end-users**, all target groups agree that the focus should be put mainly on "General data management and visualisation methods" (33% from the local authorities and 48% from the energy agencies and provincial/regional authorities

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1 Background

Public authorities have varying levels of knowledge, skills, and capacity for sustainable energy solutions; from planning to financing and successful implementation. As such, it is important to meet diverse needs of different public authorities and to strengthen collaboration and engagement among them.

The policies for monitoring and verification are often formed on national level and cities often do not have the capacity for setting up proper Monitoring, Revision and Validation (MRV) practices and do not properly monitor impact of their policies and implemented actions. Beyond benchmarking their performances and sharing of best practices, this engagement will enable them to make more marketable projects with proper measurement and verification applied to their planned and ongoing projects.

Some key questions that formulate the work envisaged in ENERGee Watch are:

- How can local authorities make sure their energy interventions are properly monitored, measured and verified?
- What are local authorities struggling with the most when it comes to measurement, reporting and verification?
- What kind of support and tools would the local authorities find helpful to enhance their MRV capacity, and help deliver an energy transition?

The European Covenant of Mayors Office conducted an extensive study[1] in 2017 to assess local and regional authorities' main capacity-building needs in terms of urban climate and energy planning. Table 1 summarises the results of the 514 municipalities and the 80 provinces and regions that participated. This was used as preliminary needs-assessment for the co-development of the ENERGee Watch proposal.

Table 1: Capacity-building needs of cities and regions in climate and energy planning

	% of cities having expressed strong needs	% of regions/ provinces having expressed strong needs	ENERGee-Watch Courses that could address these needs
Identifying relevant tools and methods for elaborating a comprehensive emission inventory	36,4 %	34,4 %	Course 1: Data collection (acquisition and treatment) Course 4: data display, dissemination and validation by local authorities
Collecting and/or interpreting local energy data	42%	42,2%	Course 1: Data collection (acquisition and treatment) Course 4: data display, dissemination and validation by local authorities
Defining monitoring indicators for mitigation	47,5%	40,6%	Course 2: MRV: follow up on implementation of actions
Identifying relevant tools and methods for elaborating the RVA	50,4%	51,6%	Course 3: Indicators Adaptation to Climate Change

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Collecting and/or interpreting climate data	46,3%	53,1%	Course 3: Indicators Adaptation to Climate Change
Defining monitoring indicators for adaptation	52,9%	50%	Course 2: MRV: follow up on implementation of actions
Monitoring the results of the implemented actions of the SECAP	50%	39,1%	Course 2:MRV: follow up on implementation of actions

As is evident from the needs assessment, the cities and regions are divided in their needs. Data collection, defining monitoring indicators, interpreting collected data are all present obstacles to successful MRV implementation on the local level. It is also interesting to note that collecting and interpreting data for adaptation measures is even more ambiguous than when it comes to the mitigation actions. Thus, we decided to offer four training courses (i.e., modules), out of which one will be focused on adaptation and three on mitigation actions. The four courses of ENERGee Watch will offer are:

- data collection,
- monitoring and verification,
- indicators for adaptation to climate change,
- data display, dissemination and validation by local authorities.

To complement this survey and offer a targeted programme to local, regional authorities and their agencies. The ENERGee Watch project foresees as one of its first activity to run another needs assessment exercise via a survey with public bodies to identify the needs and barriers they face in developing and monitoring their energy and climate plans.

The ENERGee Watch needs assessment survey had several objectives:

- Provide a detailed analysis of the needs of participants in each of the areas identified by the analysis of the Covenant of Mayors survey.
- Within each potential learning courses, identify the topics for which the respondents would need the most support.
- Define the delivery preferences of the learning programme.

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2 Methodology and questionnaire structure

The survey was designed by FEDARENE and UPRC with the input of all project's partners. The EU Survey platform was used to host the survey. The questionnaire can be found in Annex 1 and consists of 2 main sections:

Section 1: Administrative information and learning methods

Section 2: Needs assessment in 4 topics:
- Energy data collection (treatment and acquisition)
- Monitoring, Reporting, Verification: follow-up of implementation of actions
- Indicators and strategies on adaptation to climate change
- Data display, dissemination and validation by end-users

Respondents were asked to self-assess their organisation's knowledge and identify areas of potential improvement in collecting, analysing, monitoring and disseminating energy and climate data.

Duration

The survey has been opened from 19 November 2020 until 13 December 2020

Promotion

It has been promoted on several channels:

- **Websites:**

ENERGEE Watch website
https://energee-watch.eu/take-the-survey-for-a-seat-in-the-peer-learning-programme/
Covenant of Mayors Website
https://eumayors.eu/news-and-events/news/1836-help-design-a-new-peer-learning-programme-mentored-by-experienced-energy-agencies.html
Managenergy website
https://www.managenergy.eu/node/1092?fbclid=IwAR1u3PgRuzDNarzBjdGvEDqYuvs-8ULnxUDAhe_CC9yYNIcb1duTyQNOKns

- **Social Media**

Tweets, for instance: https://twitter.com/ENERGeeWatch/status/1331164186618056704?s=20

Figure 1: Examples of tweets for the emails campaigns:

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Mass emails

Emails announcing the survey and the opening of the recruitment of participants were sent to more than 3,000 relevant contacts (local and regional authorities, energy agencies, networks of cities, NGOs…)

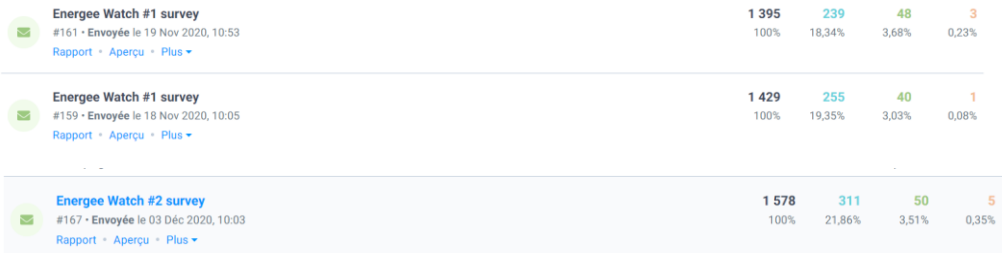

Figure 2: Fedarene's Sendinblue report for the emails campaigns:

Partners also sent them to contacts who showed an interest in the topics of the ENERGEE WATCH such as the EUSALP energy observatory, or the members of the ENERGEE WATCH network.

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3 First Results of the needs analysis

The final sample collected was composed of 53 people from 15 EU countries and 3 non-EU countries, completed by the different target groups as it follows:

- Local authorities: 12
- Energy agencies: 25
- Provincial/ Regional authorities: 6
- Other (e.g., researchers, consultants, etc.): 10

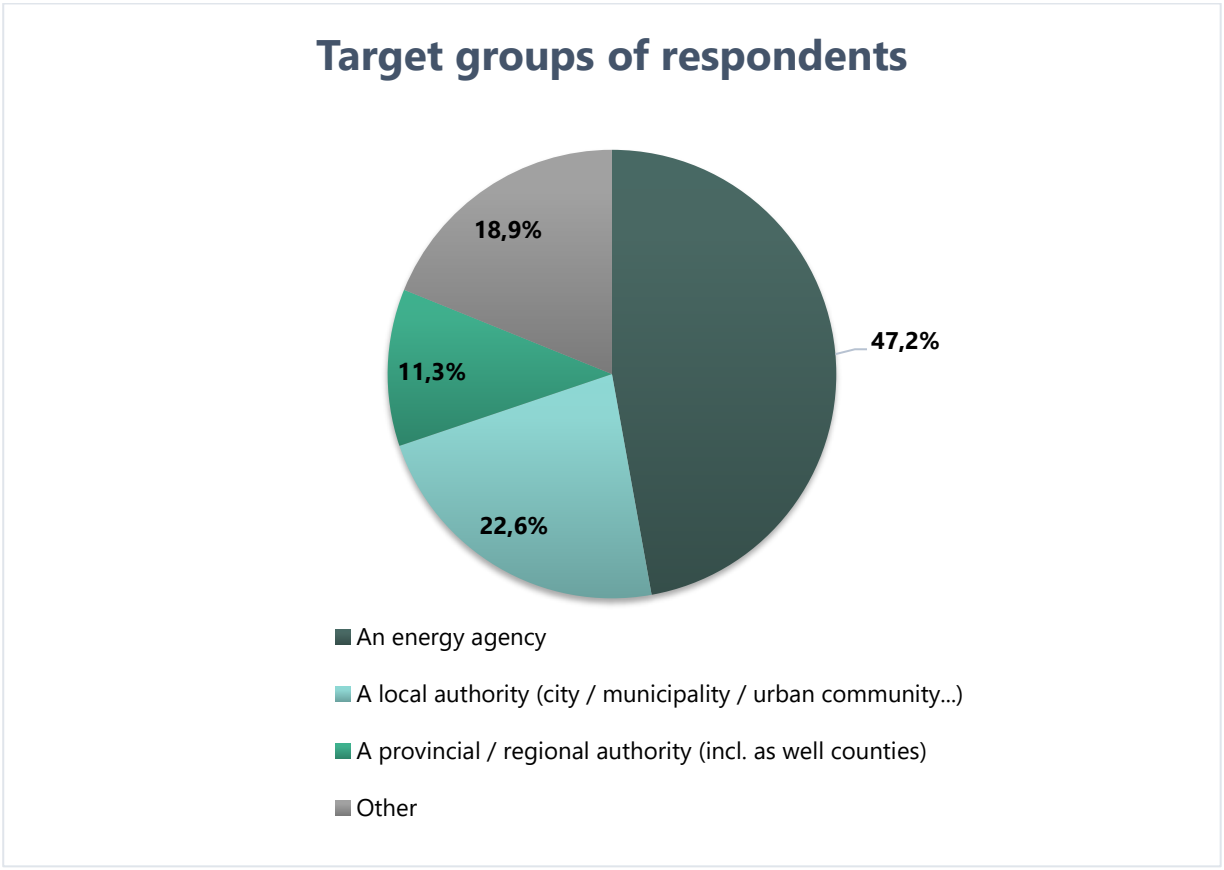

Figure 3: Survey sample breakdown by type of organisation.

The group of provincial/regional authorities was revealed as the hardest team to collect information, while energy agencies represent the highest number of respondents.

In the 4 sections below, the overall data per topic is reported for the entire sample.

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3.1 Energy Data collection (acquisition and treatment)

Results below indicate how much additional capacity-building is needed for the respondents' organisation in each of the areas. The results are expressed in %.

	0 (no need)	1 (limited need)	2 (strong need)
Collection of basic statistical data (population, CO2-emission factors, etc.)	40	26	34
Data collection: Municipal buildings, equipment, facilities	28	32	40
Data collection: Tertiary buildings	13	38	49
Data collection: Residential buildings	15	30	55
Data collection: Buildings renovation	11	40	49
Data collection: Public lighting	36	38	26
Data collection: Public transport	17	40	43
Data collection: Private and commercial transport	15	26	58
Data collection: Municipal fleet	40	38	23
Data collection: Agriculture, forestry, fisheries	21	38	42
Data collection: Energy poverty	11	26	62
Data collection: Local renewable energy	17	45	38
Data collection : Waste	17	51	32
Identification and mapping of key stakeholders that may provide or facilitate access to energy data	19	51	30
Calculation methodologies of greenhouse gas emissions	32	28	40
Choosing an accounting method (final/primary energy, Life Cycle analysis)	13	38	49
Human resources and funds needed for acquiring relevant data, technical tools and systems	13	28	58
Identification of data platforms and other data sources (when data is available online)	11	43	45
Collaborating with energy data providers to access reliable data	8	36	57
Making estimates in case of missing data or low-quality data	9	26	64
Establishing 2030 and 2050 projections and forecasts for energy and climate targets	4	36	60
Preparing a roadmap of actions towards achieving the 2030 & 2050 targets	6	26	68

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3.2 Monitoring, Reporting, Verification: follow up on implementation of actions

Results below indicate how much additional capacity-building is needed for the respondents' organisation in each of the areas. The results are expressed in %.

	0 (no need)	1 (limited need)	2 (strong need)
Development of internal administrative structures for the successful implementation and monitoring of sustainable energy action plans (roles, support, prioritization, budgeting and tools)	13	38	49
Providing periodic updates of energy and GHG emissions profiles for Baseline/Monitoring Emission Inventories at regional or local community levels	9	45	45
Defining progress-based indicators allowing evaluation of the sustainable energy action plan (e.g: kms of cycle pathways, number of public passengers/ year)	8	32	60
Defining other indicators: Socio-economic indicators (jobs created, impact on fuel poverty)	8	28	64
Sustainable energy action plan monitoring (performance based indicators in addition to Monitoring Emission Inventories)	8	28	64
Processes to verify the accuracy and reliability of datasets	9	28	62
Improvement of data quality	6	28	66
Development of business plans, feasibility and environmental analysis for sustainable energy projects	13	30	57
Reporting in various reporting systems (national, Covenant of Mayors, CDP, …)	21	45	34
Engaging and involving local actors into the successful implementation and monitoring of action plans	17	43	40

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3.3 Indicators and strategies on adaptation to Climate Change

Results below indicate how much additional capacity-building is needed for the respondents' organisation in each of the areas. The results are expressed in %.

	0 (no need)	1 (limited need)	2 (strong need)
Identifying what adaptation to climate change is.	28	45	26
Knowing how to locate climate change issues in my territory	11	47	42
Setting expectations for your work on climate adaptation	11	34	55
Identification of climate change and adaptation stakeholders within the community	13	45	42
Development of maps illustrating the risks / vulnerabilities of a territory	6	25	70
SWOT analysis for adaptation in the given territory; tagging of specific actions in favour of adaptation in the local climate plan	8	34	58
Define indicators on adaptation to climate change helping the diagnosis (physical impacts like extreme heat/cold, or socio-economic data…)	4	32	64
Identification of climate adaptation solutions to integrate in an action plan	4	36	60
Knowledge of possible adaptation solutions	4	38	58
Tools to prepare strategic guidelines that will inform the development of an adaptation plan and other adaptation initiatives	6	26	68
Including climate change adaptation into local climate plans/ articulating adaptation and mitigation	9	26	64
Defining adaptation targets until 2030, 2050	4	28	68
Defining indicators on adaptation to climate change helping the monitoring and the assessment / articulating mitigation and adaptation …	4	34	62
Mobilisation of human resources	15	40	45
Facilitation of a multi-stakeholder reflection on climate adaptation solutions	8	47	45
Governance and response plan to be put in place for your community	8	38	55
Space planning of the challenges: pressure or cooperation on environments and between stakeholders	9	32	58

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3.4 Data display, dissemination and validation by end users

Results below indicate how much additional capacity-building is needed for the respondents' organisation in each of the areas. The results are expressed in %.

	0 (no need)	1 (limited need)	2 (strong need)
Graphical and tabular data visualisation of energy/climate data	13	36	51
Visual representation of energy potentials (geothermal energy or potential for district heating systems …)	11	30	58
Identifying stakeholders' needs and expectations in energy and climate data sharing at regional and local levels	11	55	34
Identifying typical energy or emissions-related targets and uses	11	49	40
Identifying the most relevant data to be displayed and to best communicate a message	11	28	60
Using and representing data: various methods and tools illustrated with concrete examples (charts, geographical representation, Sankey diagrams, online tools)	9	36	55
Disseminating data among different stakeholder groups: various methods and tools	11	40	49
Demonstrating the benefits to end-users, data providers and political representatives	9	23	68
Dealing with the data "ownership", commercial data sensitivity, data privacy	13	32	55

Methodological note for the analysis

When looking at these results, it is quite difficult to identify in each area, the topics for which ENERGEE WATCH target group would need the most support.

The needs assessment survey should inform the development of the content of the learning programme and of each course. Therefore, UPRC carried out an **in-depth analysis**, splitting the categories in two according to their scope: local (local authorities) and regional (provincial/regional authorities, energy agencies). The sample for provincial/regional authorities was limited (6 answers from 3 organisations) not allowing us to draw some real conclusions. Then the category "energy agencies" was merged with the category "provincial/regional authorities" as they cater for the needs of municipalities and for this survey it would make more sense to join the two.

In the next section, the results for each target group are presented.

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4 Results of the needs analysis per target group

Only the categories in which most respondents, more than 49%, expressed a strong need (see section 3.2) have been analysed in the following section and split by target group.

4.1 Local authorities

Local governments are playing an increasingly important role in the transition towards a more energy-efficient, fully renewable, smart and decentralised energy system. With their large estates, central role in transport and land use planning, and proximity to key stakeholders, local governments are well equipped to accelerate energy innovation. However, further effort is needed in order to develop a favourable environment that will allow public authorities to step into new roles in climate and energy planning. Local authorities which participated in the needs' assessment survey reported that they **possess limited data and they have no standard practices and methodologies in place to collect climate and energy data and to use them for validation, projections and forecasts**. Moreover, local authorities mentioned that they have **limited capacity handling even the data they already have, and further progress is required regarding territorial data utilization, presentation and dissemination**. Finally, it was stated that facilitation is needed when it comes to roadmap development and engagement of relevant stakeholders. Ultimately, smart policy implementation relies on evidence-based decision-making and data is growing exponentially as well as its role in guiding decisions. Furthermore, the more detailed the data, the clearer the picture of the impact of particular policies or investments.

The 12 participant local authorities are distributed in different percentages depending on the country:

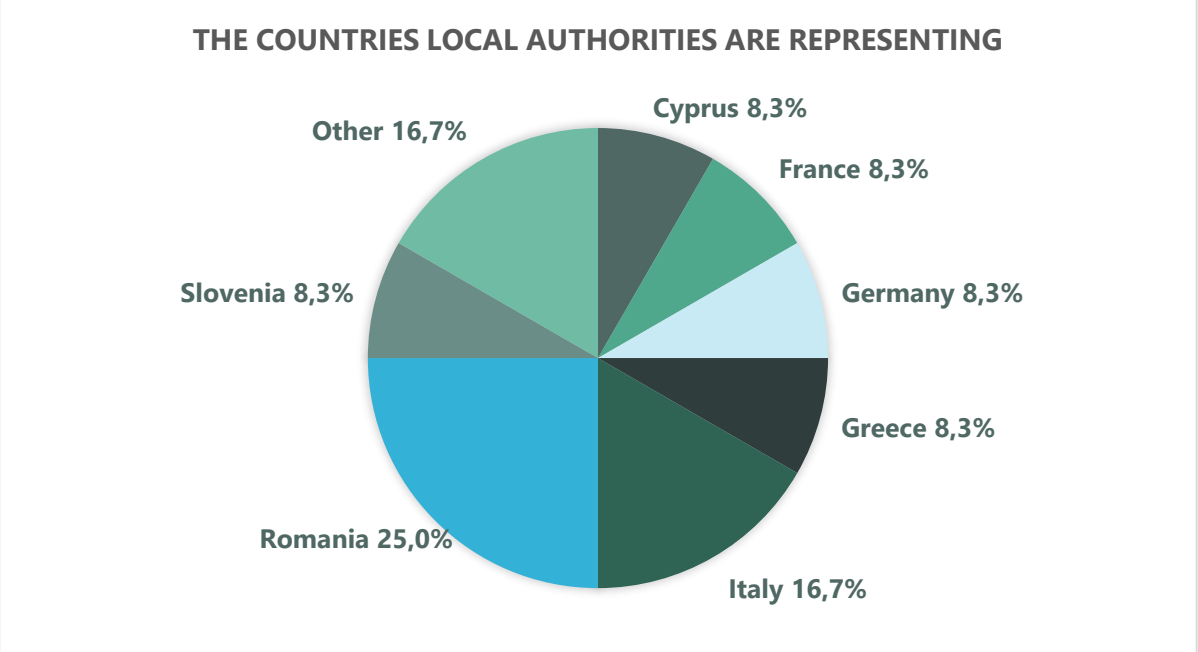

Figure 4: Participation of local authorities by country

It is evident that the biggest share of local authorities originates from Romania (25%), followed by Italy (16,7%) and other non-EU members (16,7%). It is also noteworthy that a substantial number of countries that participated in the survey (Austria, Bulgaria, Croatia, Denmark, Hungary, Portugal, Spain and

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Sweden) are not represented by local authorities in this survey sample.

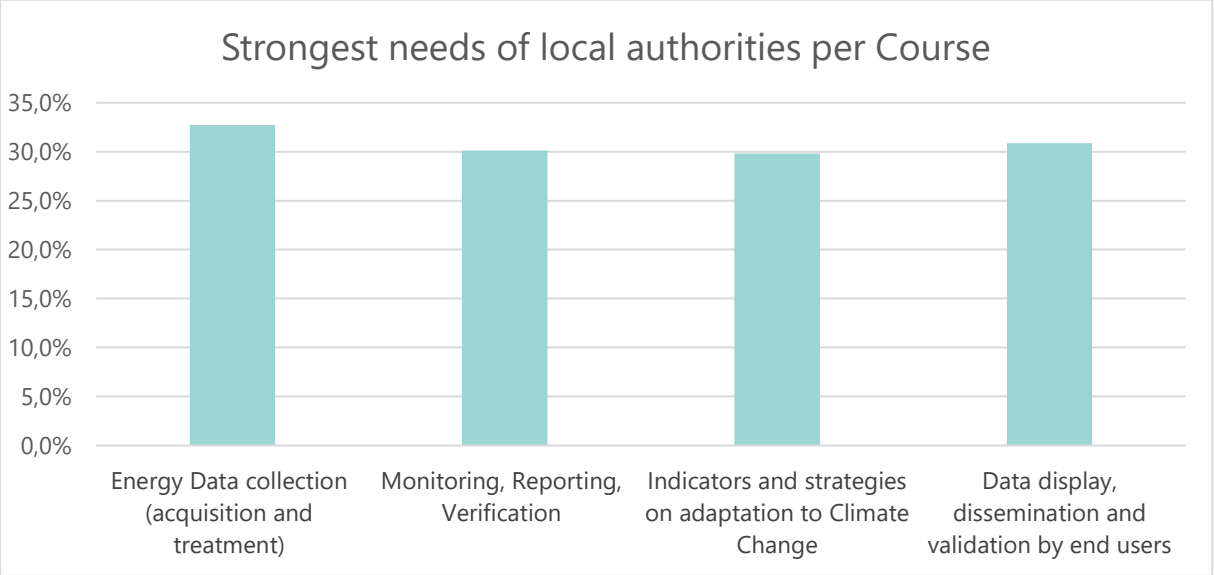

Figure 5: Average percentage of strongest needs per Course for local authorities

Regarding the average percentage for strong needs per course of the survey, it is observed that the group of local authorities is showing a stronger need in Course 1 ["Energy Data collection (acquisition and treatment)"] with an average percentage of 32,7%. Conversely, the target group of local authorities presents the least strong need for Course 3 ("Indicators and strategies on adaptation to Climate Change") with an average percentage of 29,8% of all participants representing a local authority.

4.1.1 Energy Data collection (acquisition and treatment)

In the first Course of the survey, concerning Energy Data collection (acquisition and treatment), the survey questions were grouped according to the topic that they were relevant to. The categories used and the questions they include are presented below:

- Private Buildings/Energy Renovation/Energy Poverty
  - Data collection: Municipal buildings, equipment, facilities
  - Data collection: Tertiary buildings
  - Data collection: Residential buildings
  - Data collection: Buildings renovation
  - Data collection: Energy poverty
- Transport
  - Data collection: Public transport
  - Data collection: Private and commercial transport
  - Data collection: Municipal fleet
- Waste
  - Data collection: Waste
- Data Management

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- Identification and mapping of key stakeholders that may provide or facilitate access to energy data.
- Identification of data platforms and other data sources (when data is available online).
- Collaborating with energy data providers to access reliable data.
- Making estimates in case of missing data or low-quality data.

- Strategy and Framework for Energy and Climate targets
  - Establishing 2030 and 2050 projections and forecasts for energy and climate targets.
  - Preparing a roadmap of actions towards achieving the 2030 and 2050 targets.
- Technical tools and calculation methods for data analysis
  - Choosing an accounting method (final energy, primary energy, Life Cycle analysis).
  - Human resources and funds needed for acquiring relevant data, technical tools and systems.

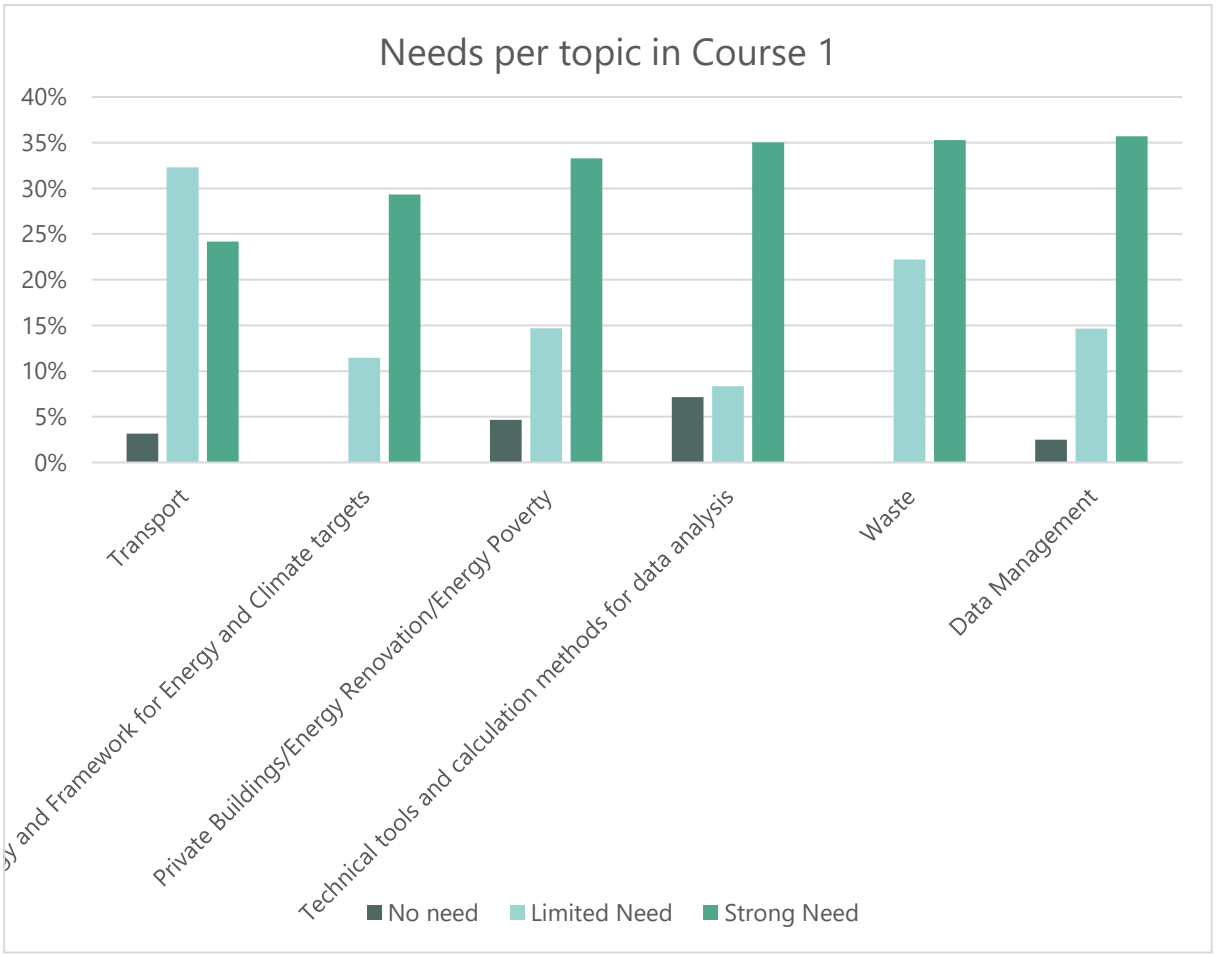

Figure 6: Average percentages of needs' levels per topic

As it is presented, the vast majority of the topics addressed in this Course follow the same trends, meaning that there is substantial need for learning in these topics. The topic of "Transport" presents an exception to this by having 32% of all participants that expressed limited need for further learning, representing a local authority.

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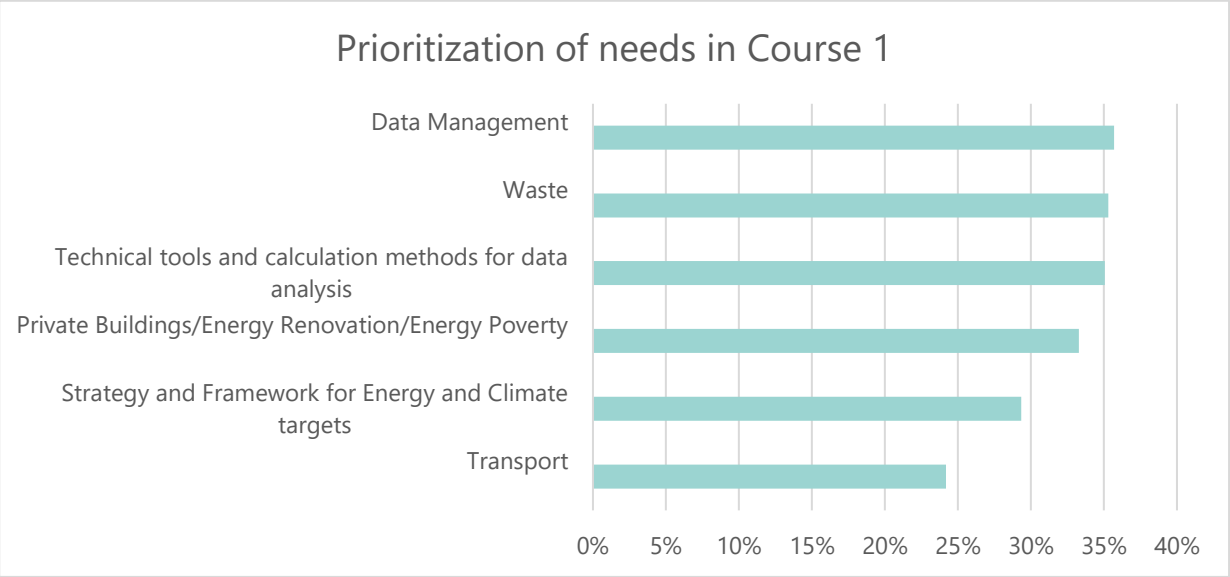

Figure 7: Average percentages of the strong needs of the local authorities per topic

Based on Figure 6 the topics that present the strongest need are the following:

- Data Management (36%)
- Waste (35%)
- Technical tools and calculation methods for data analysis (35%)

Focus on these topics should be given when developing the learning materials and in the learning programme implementation.

4.1.2 Monitoring, Reporting, Verification: follow up on implementation of actions

For the second Course, which is Monitoring, Reporting, Verification: follow up on implementation of actions, the survey questions were again grouped according to the topic that they were relevant to. The categories used and the questions they include are presented below:

- Internal Capacity
  - Development of internal administrative structures for the successful implementation and monitoring of sustainable energy action plans (roles, support, prioritization, budgeting and tools).
  - Development of business plans, feasibility and environmental analysis for sustainable energy projects.
- Reporting
  - Providing periodic updates of energy and GHG emissions profiles for Baseline/Monitoring Emission Inventories at regional or local community levels.
  - Reporting in various reporting systems (national, Covenant of Mayors, CDP, etc.).
- Developing Indicators and Monitoring

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- Defining progress-based indicators allowing evaluation of the Sustainable energy action plan (e.g.: kms of cycle pathways, number of public passengers per year).
- Defining other indicators: Socio-economic indicators (jobs created, impact on fuel poverty) Sustainable energy action plan monitoring (performance based indicators in addition to Monitoring Emission Inventories).

- Data Quality
  - Processes to verify the accuracy and reliability of datasets.
  - Improvement of data quality.

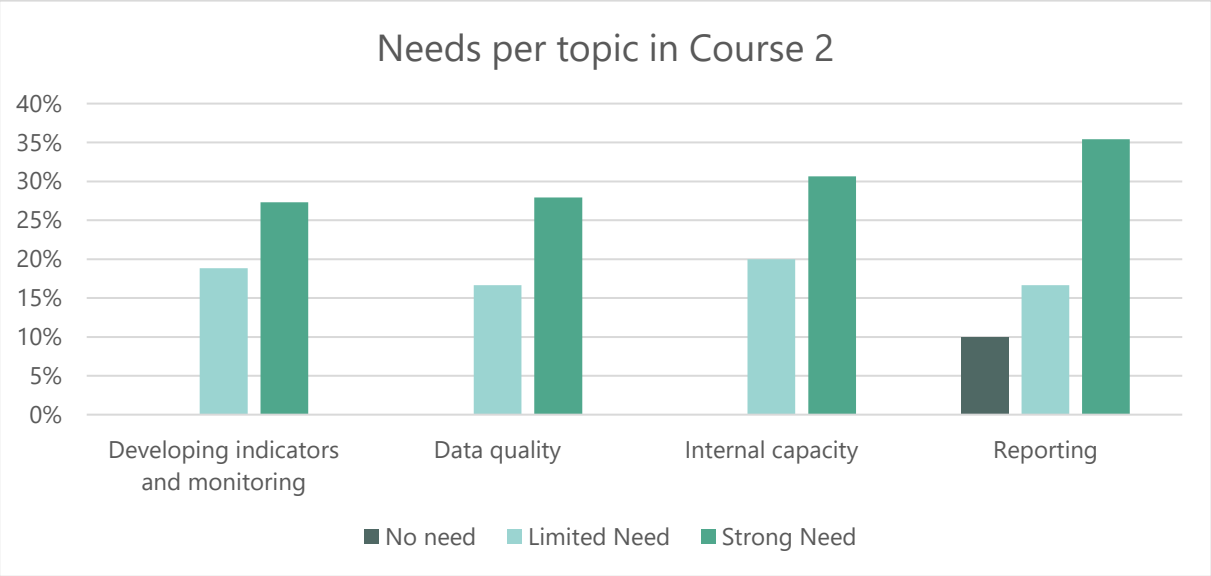

Figure 8: Average percentages of needs' levels per topic

As it is evident from Figure 7, all the topics addressed in this survey Course are characterised by a strong need for further learning.

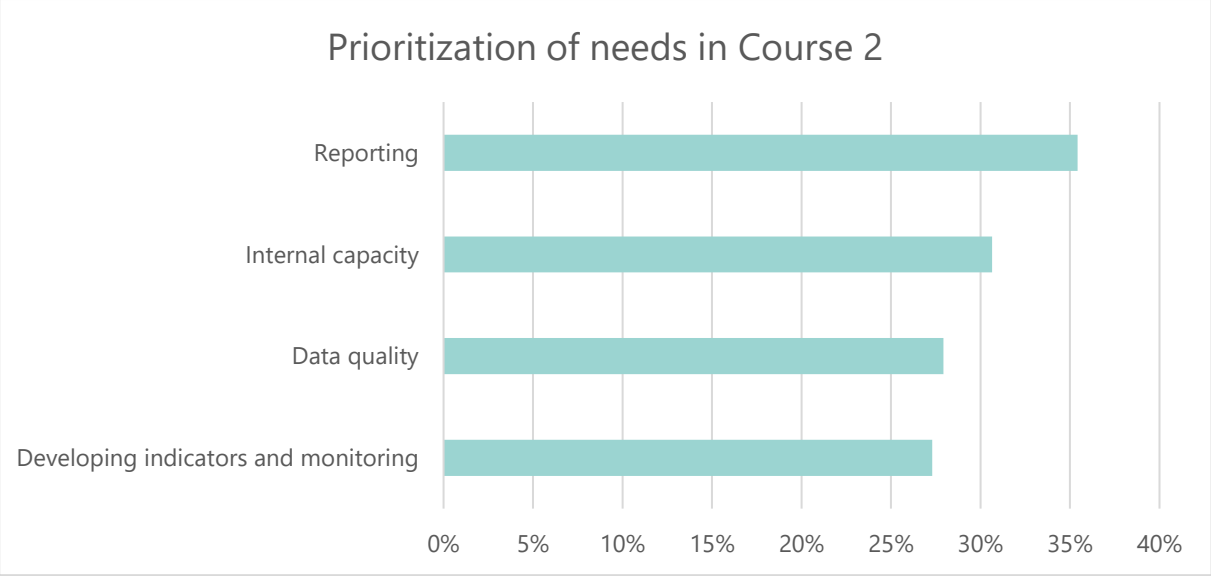

Figure 9: Average percentages of the strong needs of the local authorities per topic

Based on Figure 7 the topics that present the strongest need are the following:

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- Reporting (35%)
- Internal Capacity (31%),
- Data quality is following (28%) and the least strong needs are reported by local authorities when it comes to developing indicators and monitoring (27%)

4.1.3 Indicators and strategies on adaptation to Climate Change

For the third Course, Indicators and strategies on adaptation to Climate Change, the survey questions were again grouped according to the topic that they were relevant to. The categories used and the questions they include are presented below:

- Strategy and Framework Development for Climate Change Adaptation
  - Setting expectations for your work on climate adaptation.
  - Including climate change adaptation into local climate plans/ articulating adaptation and mitigation.
  - Defining adaptation targets until 2030, 2050.
- Tools and methods to facilitate the development of a climate adaptation plan
  - Development of maps illustrating the risks / vulnerabilities of a territory.
  - SWOT analysis for adaptation in the given territory; tagging of specific actions in favour of adaptation in the local climate plan.
  - Tools to prepare strategic guidelines that will inform the development of an adaptation plan and other adaptation initiatives.
- Development of climate adaptation indicators for diagnosis and assessment
  - Define indicators on adaptation to climate change helping the diagnosis (physical impacts like extreme heat/cold, or socio-economic data…).
  - Defining indicators on adaptation to climate change helping the monitoring and the assessment/articulating mitigation and adaptation.
- Climate adaptation solutions investigation
  - Identification of climate adaptation solutions to integrate in an action plan.
  - Knowledge of possible adaptation solutions.
- Governance and response plan to be put in place for your community
- Space planning of the challenges: pressure or cooperation on environments and between stakeholders

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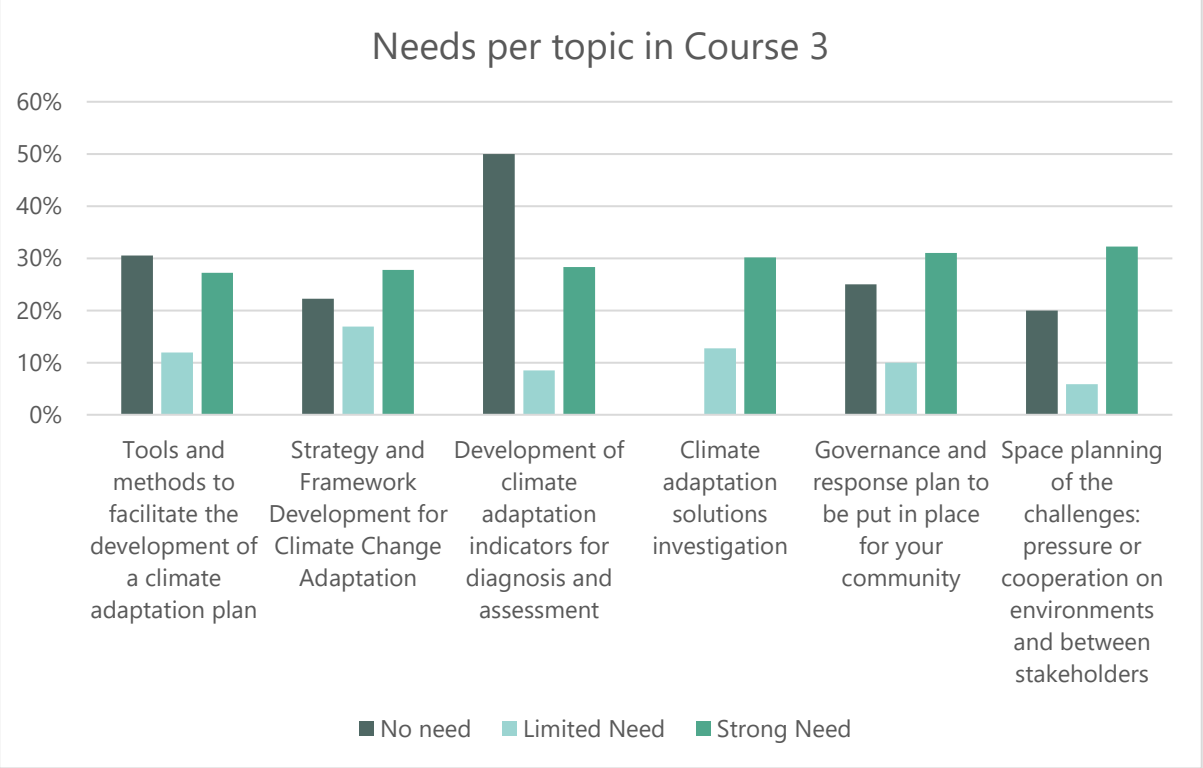

Figure 10: Average percentages of needs' levels per topic

As it is observed in Figure 9, many of the topics addressed in this Course follow the same trends, meaning that there is substantial need for learning in these topics. It is noteworthy that local authorities expressed by 50% no need for further learning regarding the topic of "Development of climate adaptation indicators for diagnosis and assessment". They also stated no need by 30% when it comes to "tools and methods facilitating the development of a climate adaptation plan".

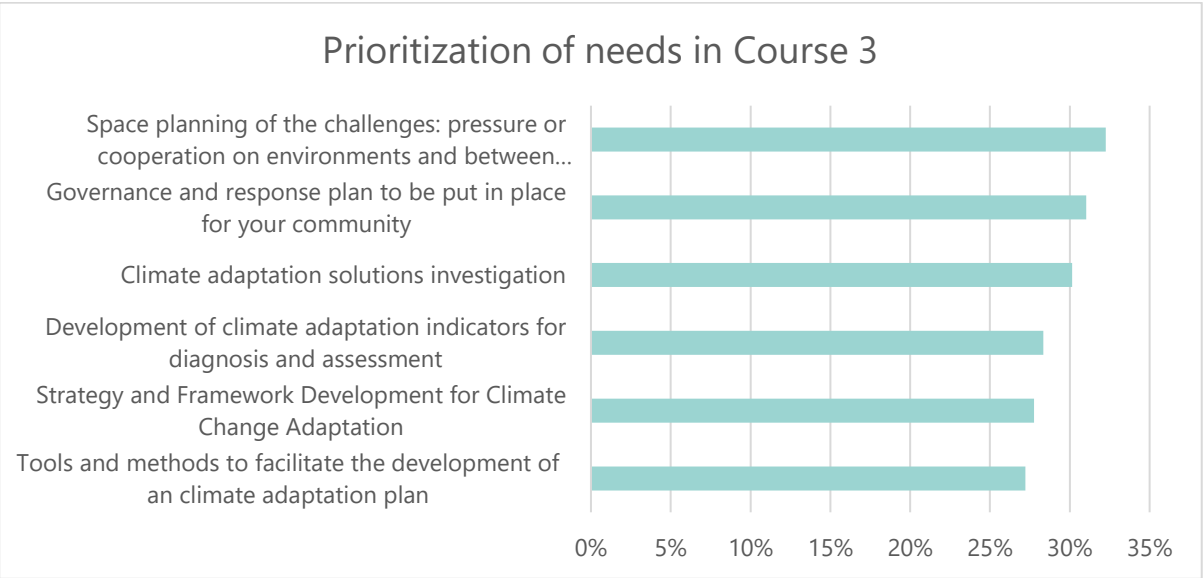

Figure 11: Average percentages of the strong needs of the local authorities per topic.

Based on Figure 10 the topics that present the strongest need are the following:

- Space planning of the challenges: pressure or cooperation on environments and between stakeholders (32%)

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- Governance and response plan to be put in place for your community (31%)
- Climate adaptation solutions investigation (30%)

4.1.4 Data display, dissemination and validation by end users

For the fourth Course, Data display, dissemination and validation by end users, the survey questions were again grouped according to the topic that they were relevant to. The categories used and the questions they include are presented below:

- General data management and visualisation methods
  - Graphical and tabular data visualisation of energy/climate data.
  - Visual representation of energy potentials (geothermal energy or potential for district heating systems etc.).
  - Identifying typical energy or emissions-related targets and uses.
  - Dealing with the data "ownership", commercial data sensitivity, data privacy.
- Selection of data and illustration methods
  - Identifying the most relevant data to be displayed and to best communicate a message.
  - Using and representing data: various methods and tools illustrated with concrete examples (charts, geographical representation, Sankey diagrams, online tools).
- Communication with stakeholders
  - Identifying stakeholders' needs and expectations in energy and climate data sharing at regional and local levels.
  - Disseminating data among different stakeholders groups: various methods and tools.
  - Demonstrating the benefits to end-users, data providers and political representatives.

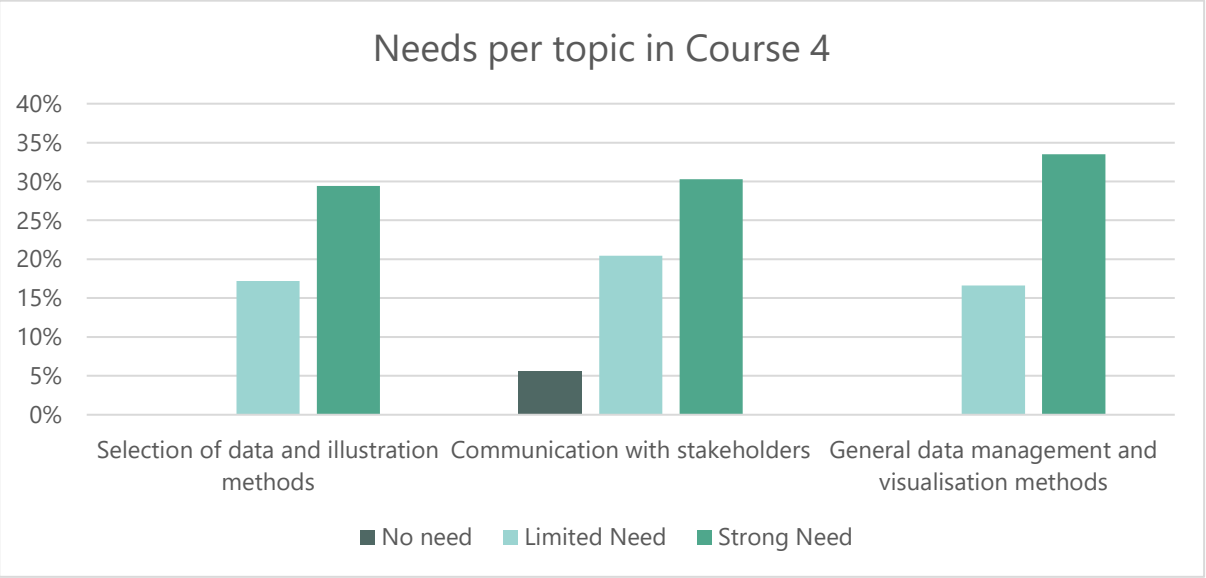

Figure 12: Average percentages of needs' levels per topic

As seen from Figure 11, the topics addressed in this Course are mainly characterised by a consistently

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strong need for learning.

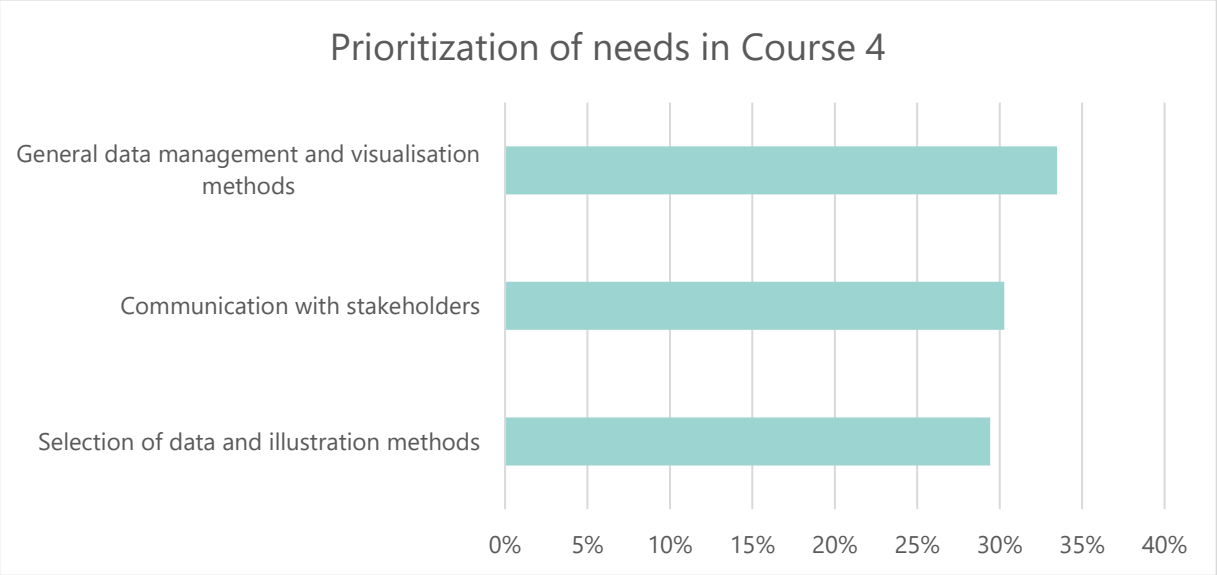

Figure 13: Average percentages of the strong needs of the local authorities per topic

Based on Figure 12 the main area of focus, which should be addressed in the development of the learning material, is that of "General data management and visualisation methods" (33%).

4.2 Energy Agencies and Provincial/Regional Authorities

In this section, the needs of energy agencies and provincial/regional authorities seem appropriate to be treated under the same target group. This stems from the broad geographical coverage of both types of organisations and their activity as organisations managing and providing data to other organisations.

The structure of this section is as follows. First, the demographics of each type of organisation are presented separately and then the strongest needs per Course are presented collectively for both the energy agencies and the provincial/regional authorities. Finally, the results' analysis of the topics of each Course are presented for both types of organisations collectively.

Energy Agencies

Energy agencies have many important roles through which they can support sustainable energy investments: as facilitators, aggregators or project developers, and therefore are in a unique position to support energy and climate projects in their regions and cities. Energy agencies that completed the ENERGee Watch Needs' assessment survey reported that data collection and management is a very demanding activity as the agencies have to collect data from multiple municipalities and it is extremely difficult to deal with medium-small municipalities where there is no data management at all (energy and climate data). These data are necessary for planning, for monitoring and reporting activities for new projects implementation. Some agencies also stated that they have good knowledge regarding data collection and processing, but they need more knowledge on demonstration of the benefits to end-users, data providers and political representatives. In order to enhance the role of energy agencies ENERGee Watch intends to enhance the skills of energy agencies' staff on project development, monitoring and verification, ultimately making them leaders in the energy transition and increasing the impact of sustainable energy projects in Europe.

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The 25 participant energy agencies are distributed in different percentages depending on the country:

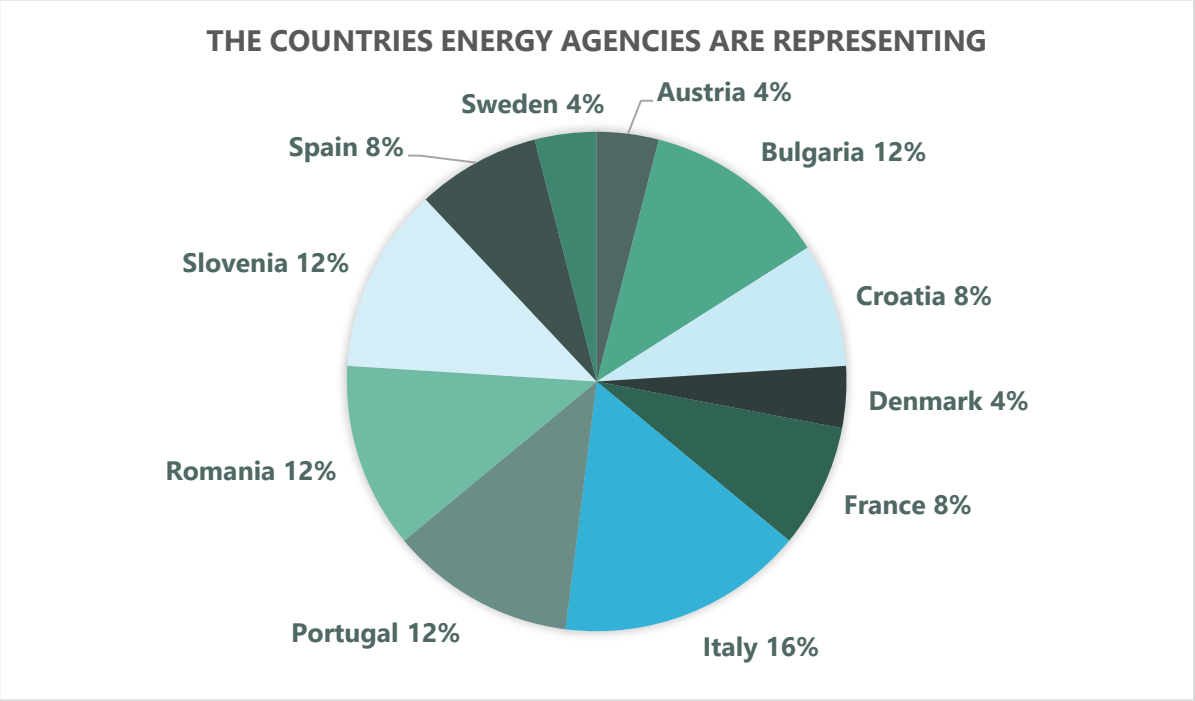

Figure 14: The participation of energy agencies by country

It is evident that most energy agencies originate from Italy (16%), followed by Bulgaria, Portugal, Romania and Slovenia (12%). It is also noteworthy that 4 of the countries that participated in the survey (Cyprus, Germany, Greece, Hungary) are not represented by energy agencies in this survey sample.

Provincial/Regional Authorities

Provincial/ regional authorities are usually responsible for such matters as spatial planning in rural areas, regional accessibility, and regional economic policy. They also monitor compliance with environmental laws on air, soil and water quality, supervise municipalities and are the most common administrators of regional GHG emissions and regional energy observatories. Provincial/regional authorities that filled-in the survey reported that they would like to set up a regional energy observatory in their region with the knowledge gained from ENERGee Watch. Moreover, they would like to implement climate adaptation measures in their regional energy planning and learn how to organize and analyse the data collected from the energy and climate plans. Finally, another need highlighted by the regional authorities is to develop a sufficient understanding with all existing data sources within the municipal administration. As stated, privacy issues are used as excuse for not collaborating, thus it would be interesting to explore legal frameworks for collaborations between public departments and different stakeholders. ENERGee Watch aims to actively facilitate provincial/regional authorities to contribute strongly towards building a representation of the regional impact on climate change and a framework for identifying areas of responsibilities and priorities for action.

The six participating provincial/regional authorities are distributed in different percentages depending on the country:

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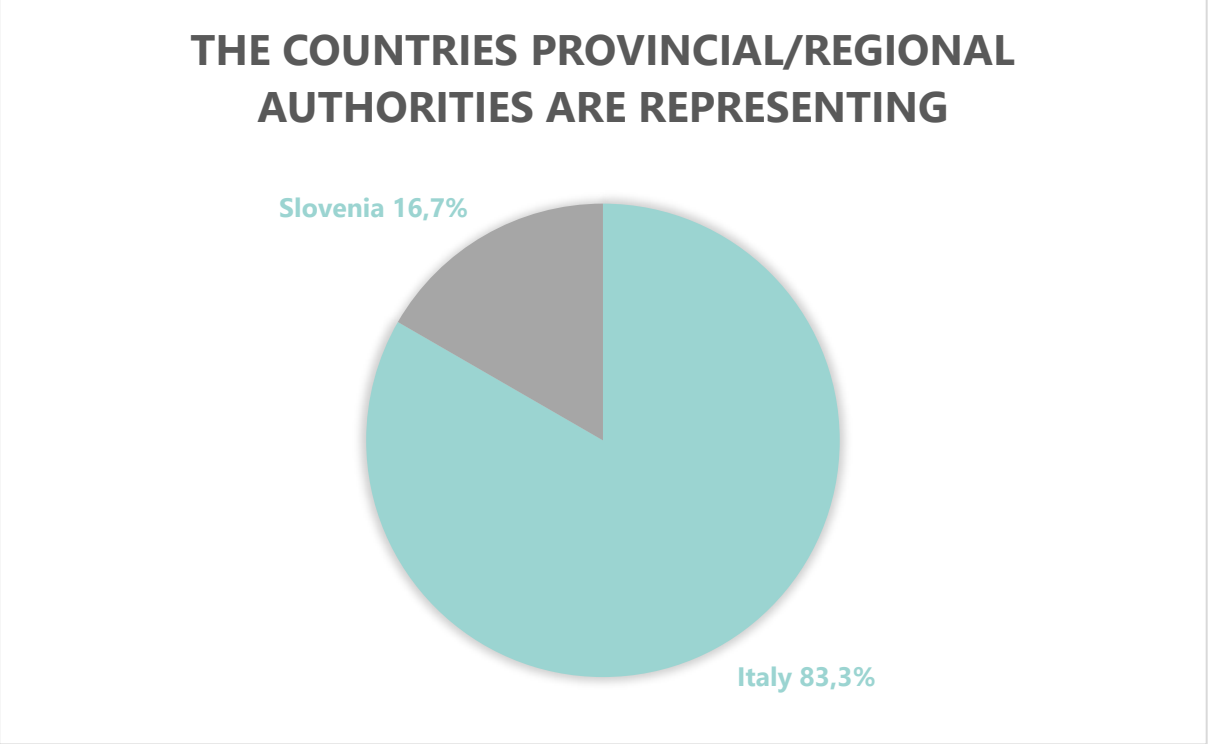

Figure 15: Participation of provincial/regional authorities by country

As far as the provincial/regional authorities are concerned, it important to point out that only 2 of the participating countries are represented by such authorities. Firstly, Italy with 83,3% and secondly Slovenia with 16,7%.

Strongest needs of energy agencies and provincial/regional authorities

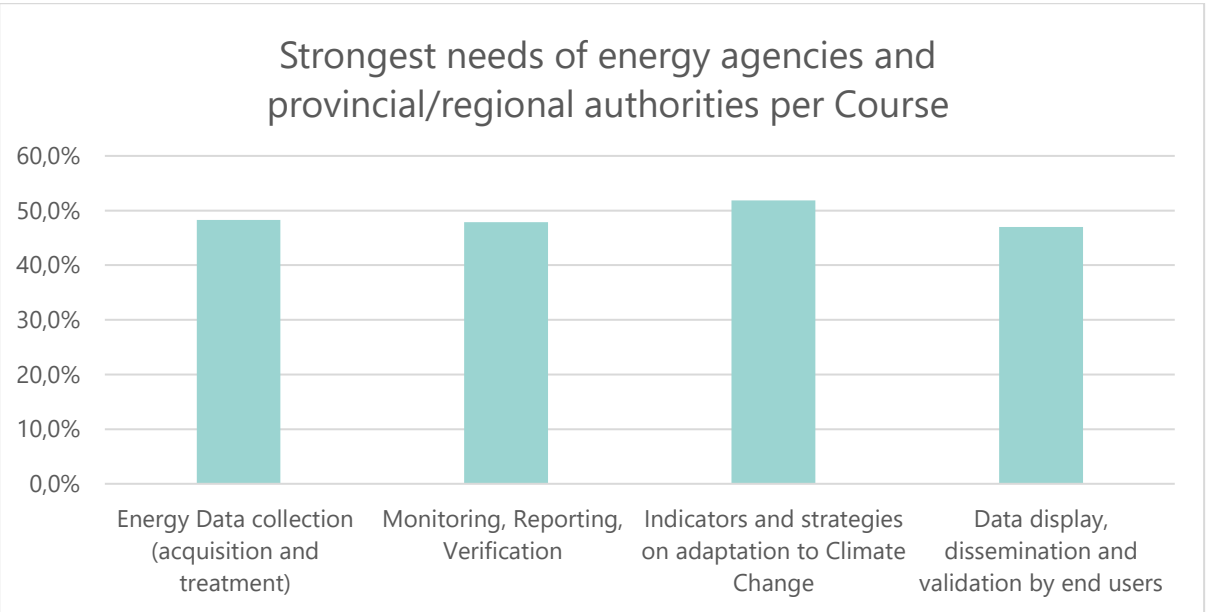

Figure 16: Average percentage of strongest needs per Course for energy agencies and provincial/regional authorities

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Regarding the average percentage for strong needs per learning course of the programme, it is observed that the groups of energy agencies and provincial/regional authorities are showing a stronger need in Course 3 ("Indicators and strategies on adaptation to Climate Change") with an average percentage of 51,8%. Conversely, the target group of local authorities presents the least strong need for Course 4 ("Data display, dissemination and validation by the end users") with an average percentage of 47% of all participants representing an energy agency or a provincial/regional authority.

4.2.1 Energy Data collection (acquisition and treatment)

Regarding the first Course, Energy Data collection (acquisition and treatment), the needs of energy agencies and provincial/regional authorities per category are presented below:

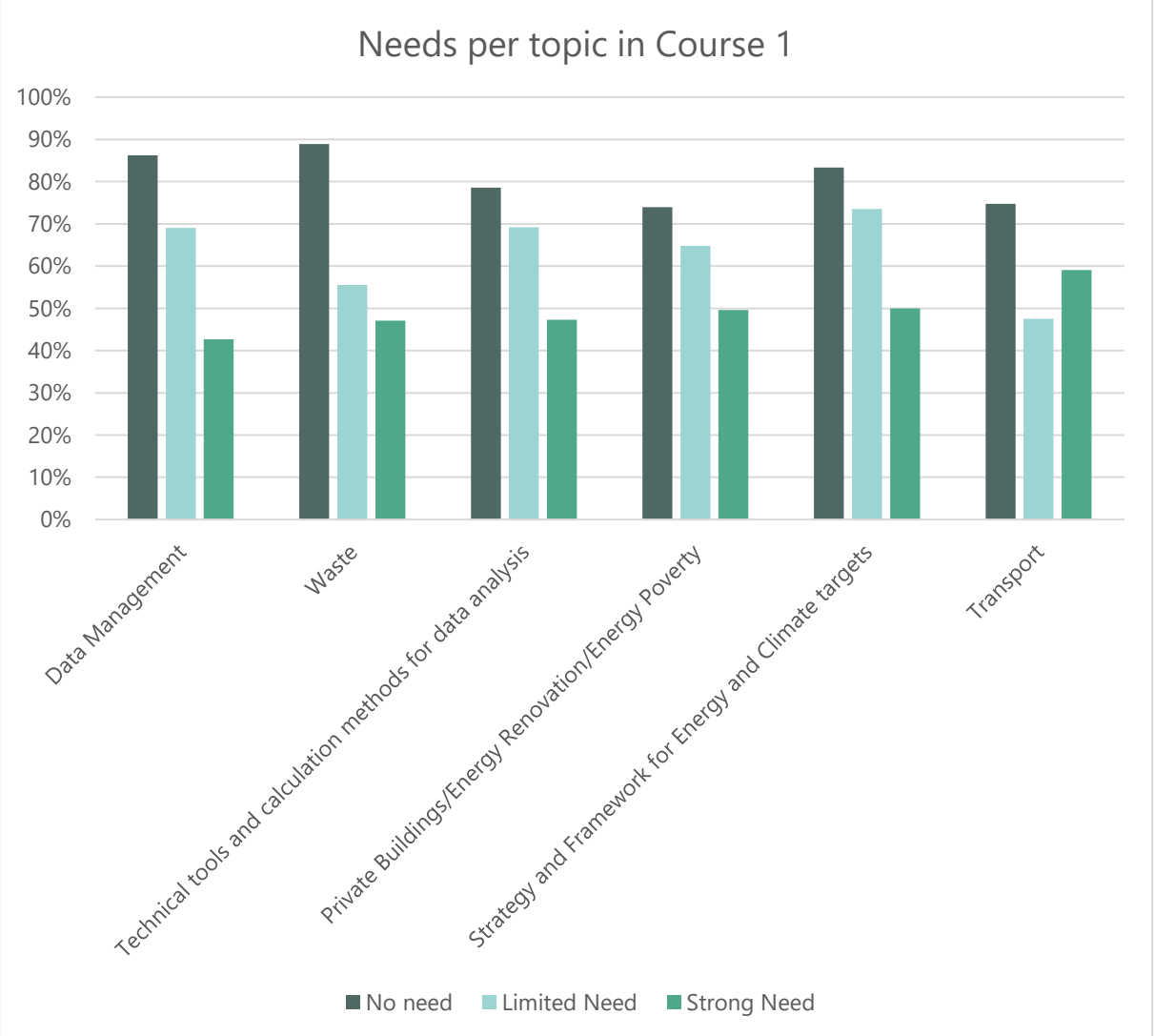

Figure 17: Average percentages of needs' levels per topic

As it is observed from Figure 16, the energy agencies and provincial/regional authorities prove to have no need for further learning in any of the categories of this Course.

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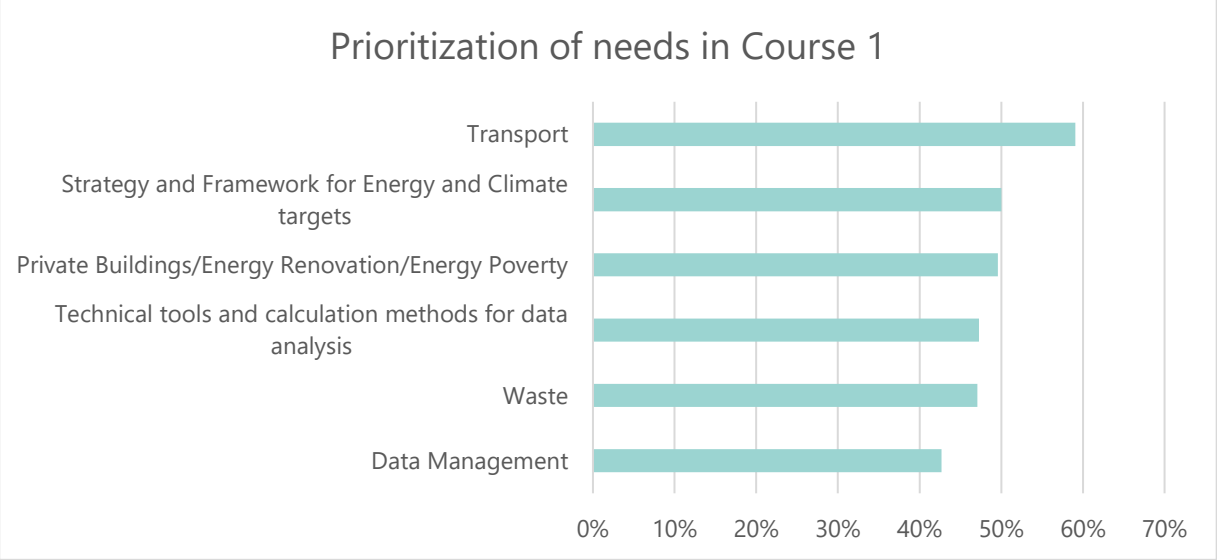

Figure 18: Average percentages of the strong needs of the provincial/regional per topic

Based on Figure 17 the topics that present the strongest need are the following:

- Transport (59%)
- Strategy and Framework for Energy and Climate targets (50%)
- Private Buildings/Energy Renovation/Energy Poverty (50%)

Focus on these topics should be given and they should be mainly addressed in the development of the learning material.

4.2.2 Monitoring, Reporting, Verification: follow up on implementation of actions

In the second Course of the survey, *Monitoring, Reporting, Verification: follow up on implementation of actions,* the needs per topic as stated by energy agencies and provincial and regional authorities are:

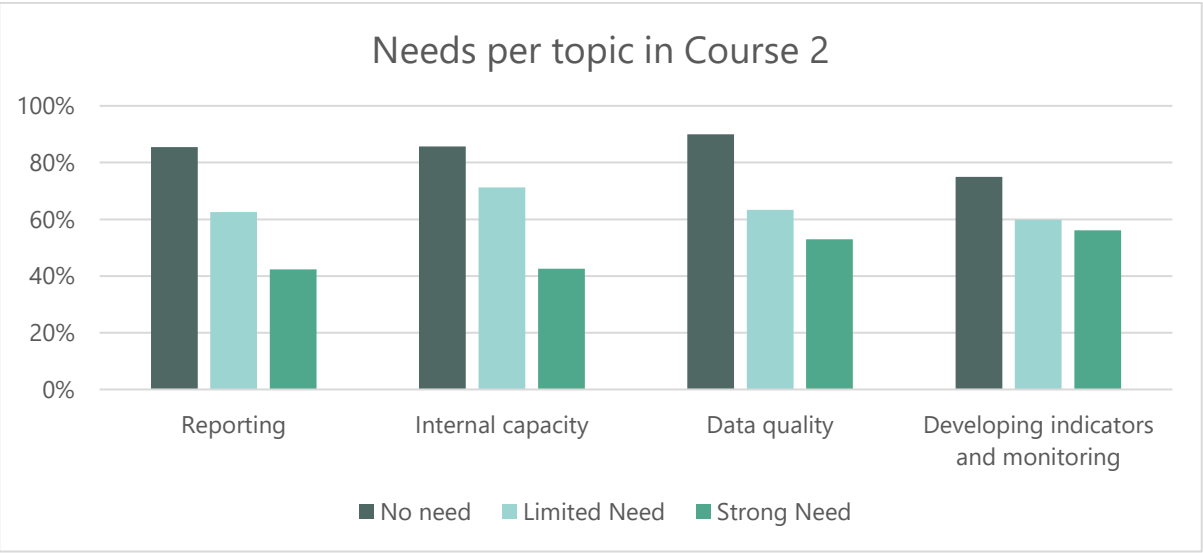

Figure 19: Average percentages of needs' levels per topic

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As it is evident from Figure 18, the energy agencies and provincial/regional authorities prove to have no need for further learning in any of the categories of this Course.

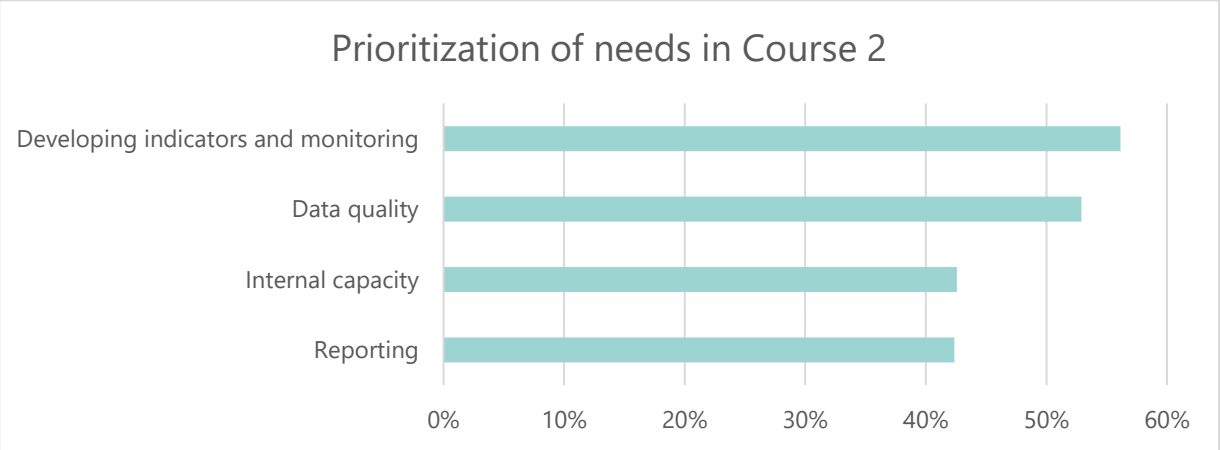

Figure 20: Average percentages of the strong needs of the provincial/regional per topic

Based on Figure 19 the topics that present the strongest need are the following:

- Developing indicator and monitoring (56%)
- Data quality (53%)

4.2.3 Indicators and strategies on adaptation to Climate Change

In the third Course of the survey, concerning Indicators and strategies on adaptation to Climate Change, the needs per topic are shown in the figure below.

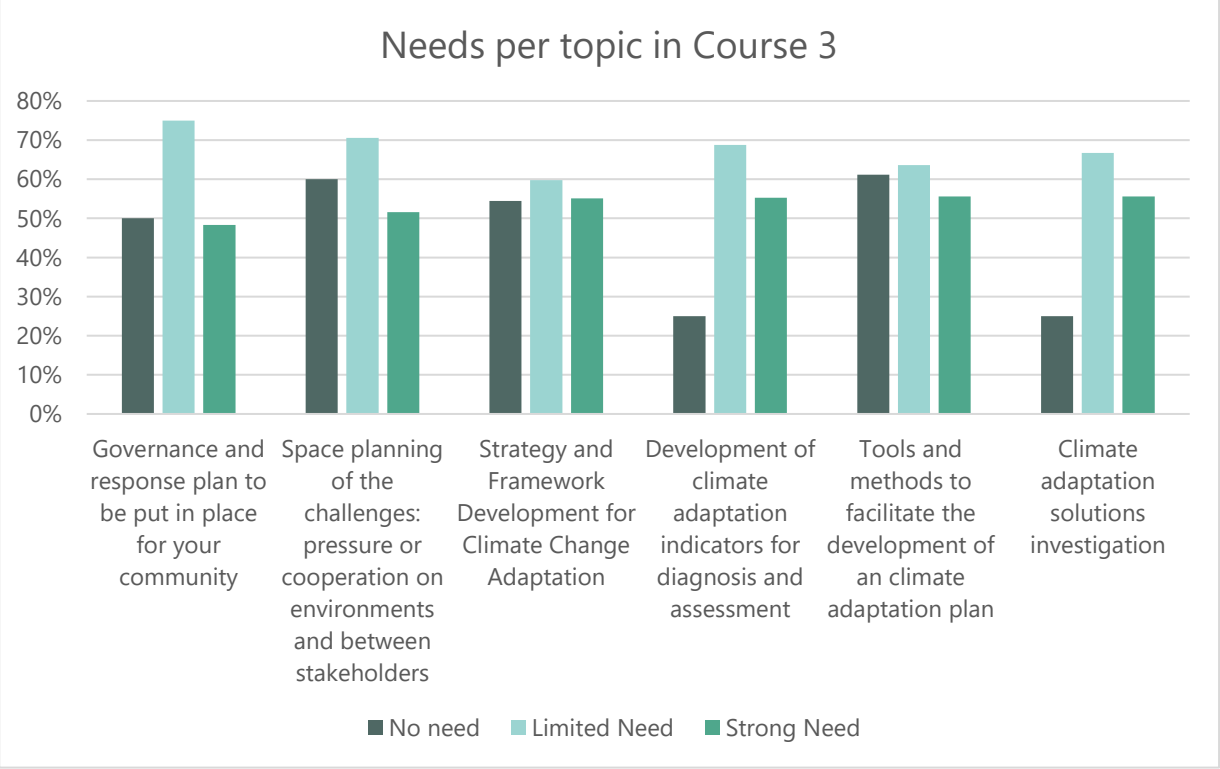

Figure 21: Average percentages of needs' levels per topic

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It is evident from Figure 20 that the energy agencies and provincial/regional authorities present limited needs in further learning across all topics of this Course. Specifically, for the categories of "Development of climate adaptation indicators for diagnosis and assessment" and "Climate adaptation solutions investigation" they present much stronger need for further learning, when compared to the percentage of the "No need" answers.

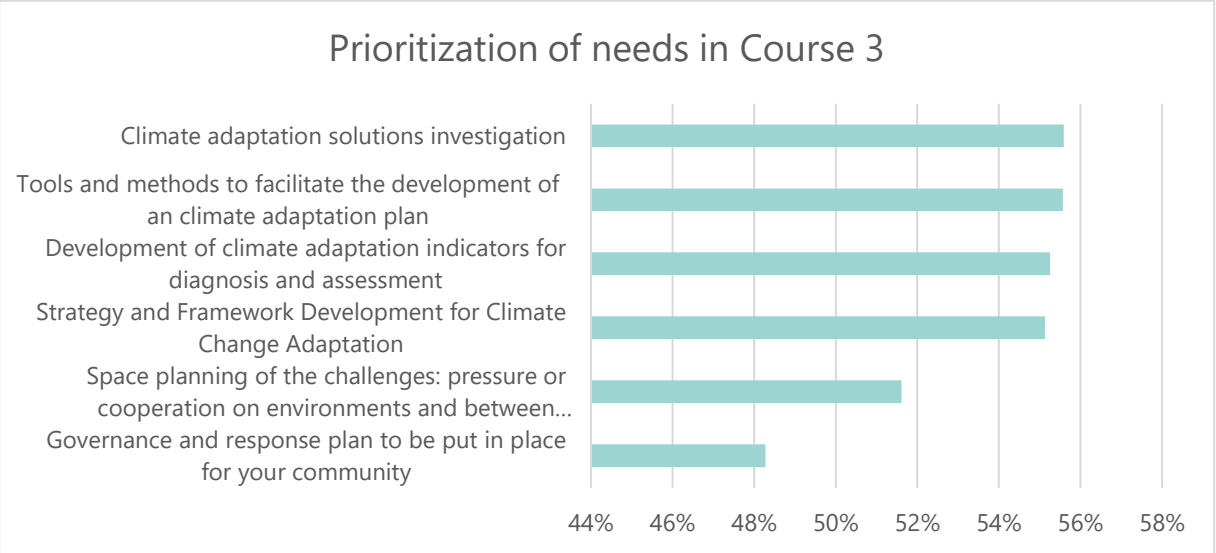

Figure 22: Average percentages of the strong needs of the provincial/regional per topic

Based on Figure 21 the topics that present the strongest need are the following:

- Climate adaptation solutions investigation (56%)
- Tools and methods to facilitate the development of a climate adaptation plan (56%)

Focus on these topics should be given and they should be mainly addressed in the development of the learning material.

4.2.4 Data display, dissemination and validation by end users

In the fourth Course of the survey Data display, dissemination and validation by end users, the needs of provincial/local authorities are the following:

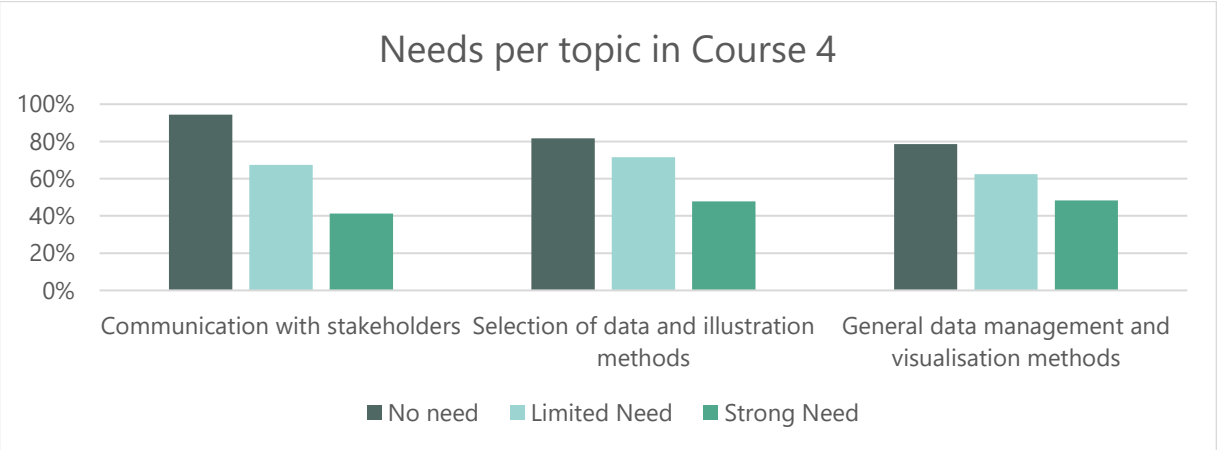

Figure 23: Average percentages of needs' levels per topic

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As it is observed from Figure 22, the energy agencies and provincial/regional authorities prove to have no need for further learning in any of the categories of this Course.

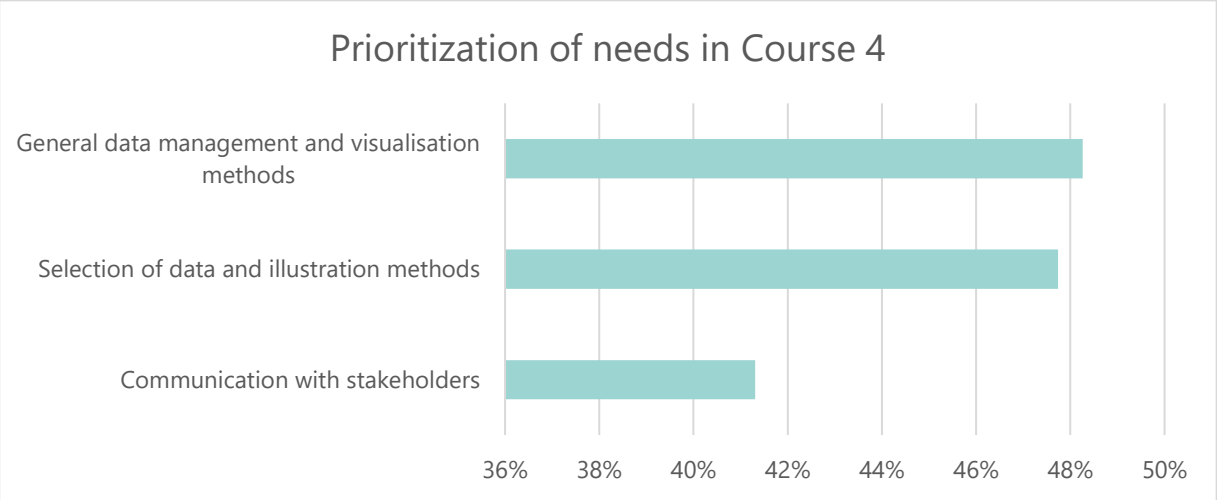

Figure 24: Average percentages of the strong needs of the provincial/regional per topic

Based on Figure 23 the topic of "General data management and visualisation methods" presents the strongest need with provincial/regional authorities expressing by 48% a strong need.

4.3 Other (Researchers, consultants, etc.)

A great challenge of the energy transition is the way collaboration is understood and approached by different actors, such as academia, NGOs and local governments. To solve problems or address issues that cannot handled by one entity alone these groups should collaborate and engage with each other, rather than focusing more on their individual goals. NGOs and academia can contribute to achieving synergies and savings by providing human and financial resources, materials and equipment, sharing information and developing joint projects with local government. NGOs stated that they often face difficulties in obtaining the necessary data to carry out independent analysis. Also, the data sometimes is hard to read, and its treatment is difficult and time consuming. Producing understandable and accessible information with the data, using the right indicators, was also reported as an important need by NGOs. Finally, some researchers mentioned that they would like to learn how to integrate climate data in the sustainable action plans, how to collect them and verify them and facilitate the cities of their country. ENERGee Watch intends to facilitate the collaboration between the different target groups and aims to provide them with useful tools and methodologies to achieve their targets through collaboration.

The 10 participants of other types of organisation are distributed in different percentages depending on the country:

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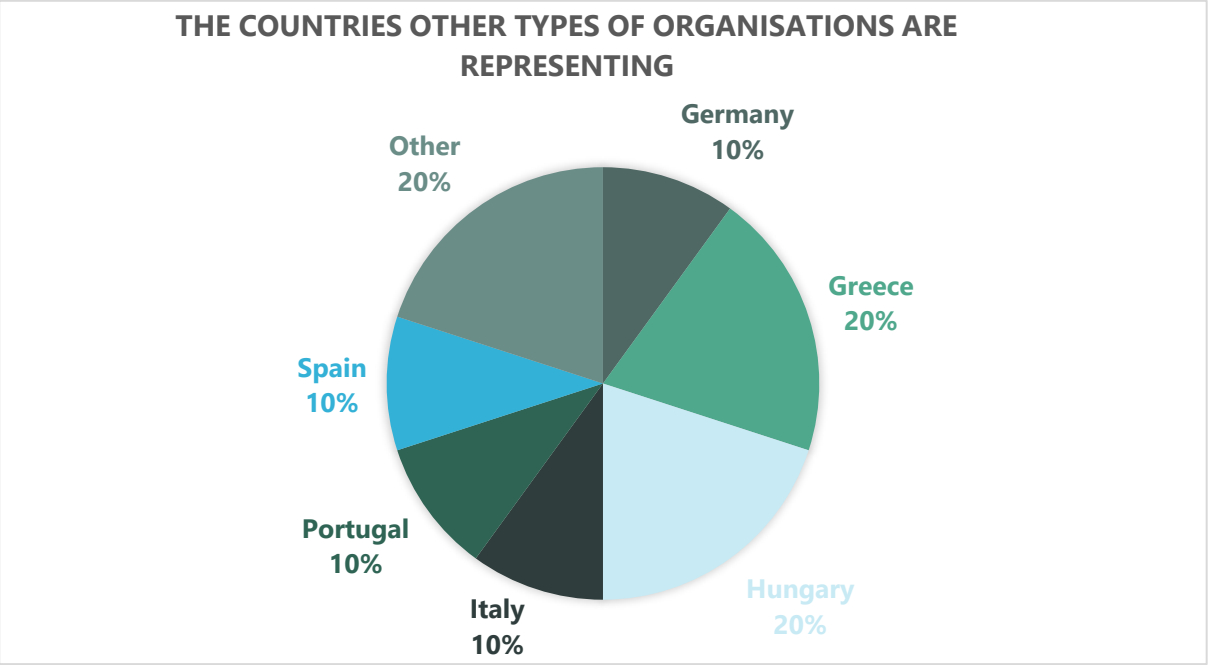

Figure 25: The participation of other types of respondents by country

It is observed that the biggest shares of the other types of respondent organisations originate from Greece, Hungary, and other non-EU members with 20%. It is also noteworthy that majority of countries that participated in the survey (Austria, Bulgaria, Croatia, Cyprus, Denmark, France, Germany, Italy, Portugal, Romania, Slovenia, Spain, Sweden) are not represented by other types of organisations in this survey sample.

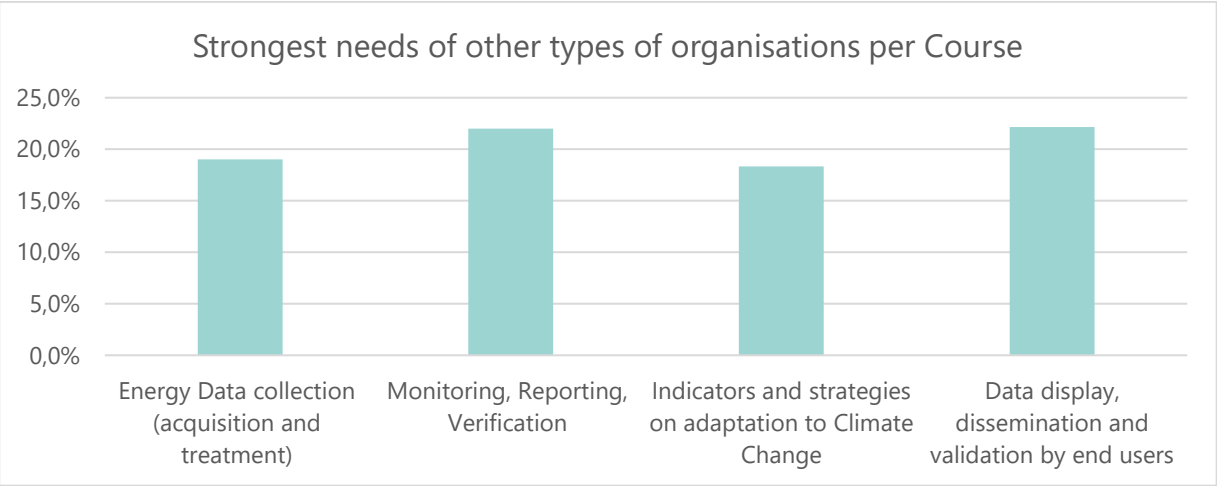

Figure 26: Average percentage of strongest needs per Course for other types of respondents

Regarding the average percentage for strong needs per Course of the survey, it is observed that the other types of respondents are showing a stronger need in Course 4 ("Data display, dissemination and validation by end users") with an average percentage of 22,2% representing other types of respondents. Conversely, the other types of respondents present the least strong need for Course 3 ("Indicators and strategies on adaptation to Climate Change") with an average percentage of 18,3% of all participants representing other types of respondents.

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4.3.1 Energy Data collection (acquisition and treatment)

In the first Course of the survey, concerning Energy Data collection (acquisition and treatment), the needs per topic for other organizations are presented below:

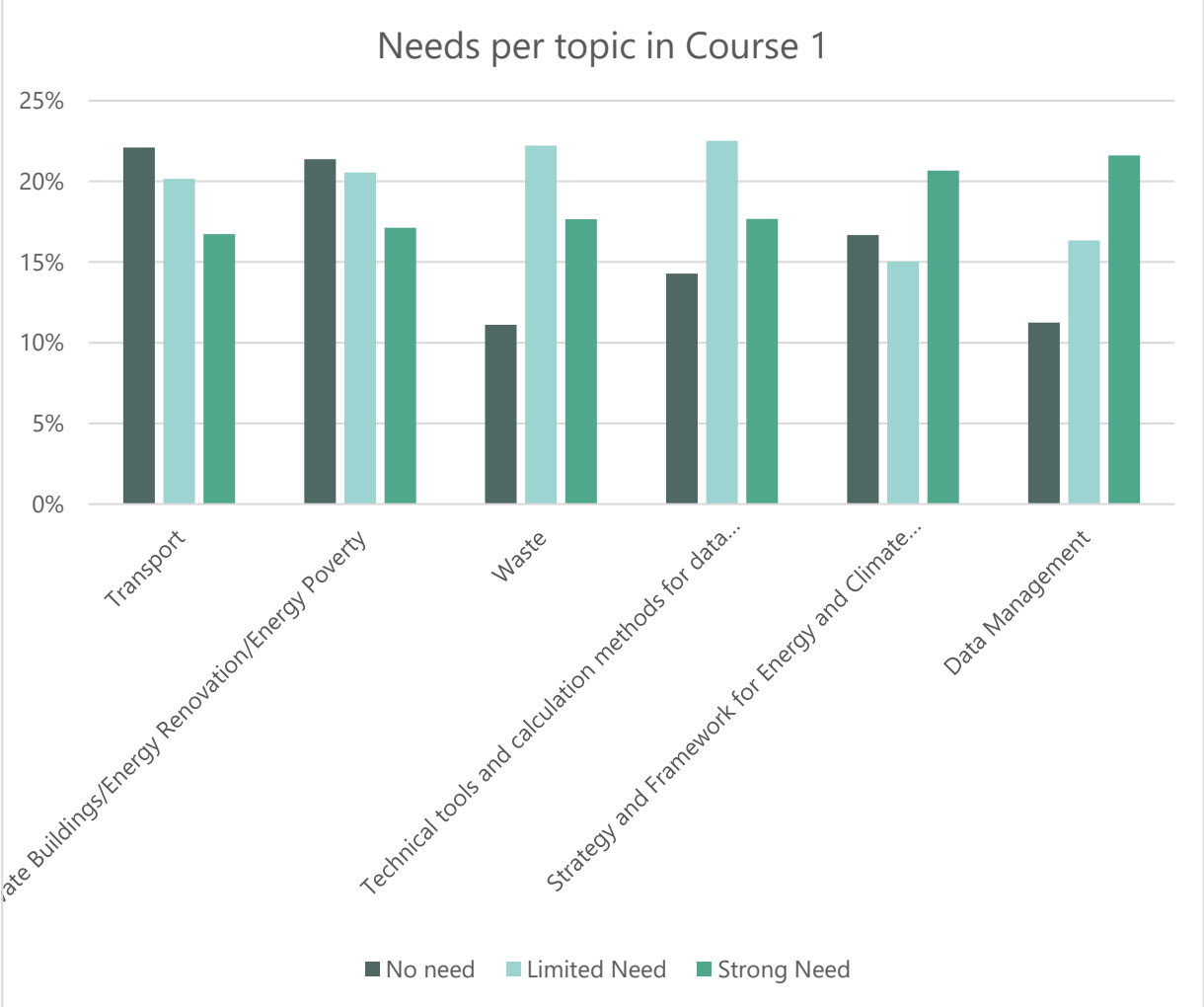

Figure 27: Average percentages of needs' levels per topic

It is evident from Figure 26 that the other respondents present a limited to strong need in the majority of topics, with the exception of "Transport" and "Private Buildings/Energy Renovation/Energy Poverty), where the other respondents express by 22% and 21%, respectively, no need for further learning.

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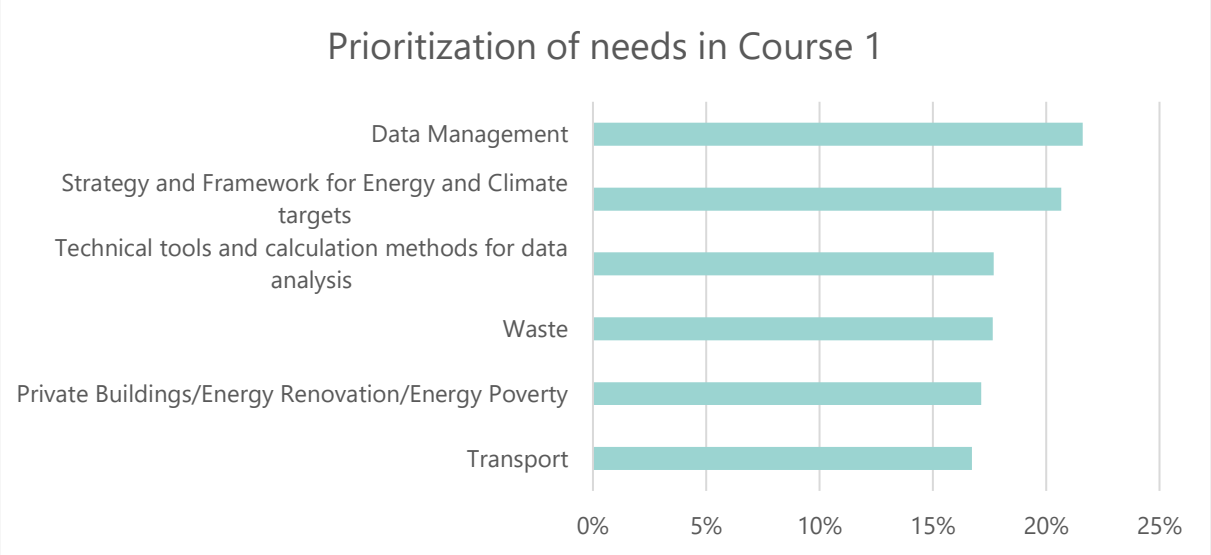

Figure 28: Average percentages of the strong needs of the other types of respondents per topic

Based on Figure 27 the topics that present the strongest need are the following:

- Data Management (22%)
- Strategy and Framework for Energy and Climate targets (21%).

4.3.2 Monitoring, Reporting, Verification: follow up on implementation of actions

In the second Course of the survey, concerning Monitoring, Reporting, Verification: follow up on implementation of actions, the survey results showing the needs of other organizations per topic are:

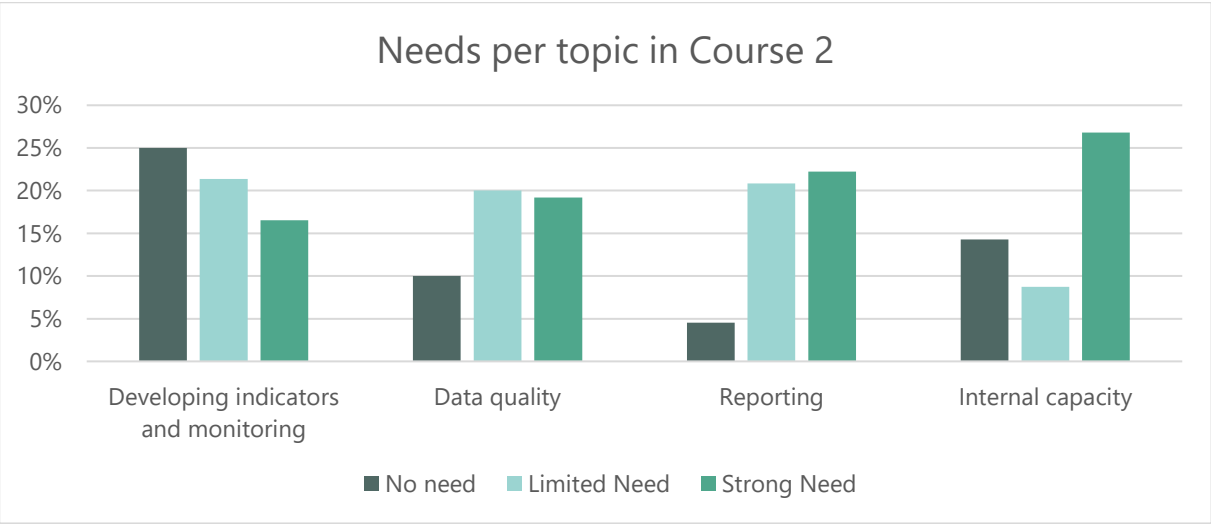

Figure 1 Average percentages of needs' levels per topic

It is evident from Figure 27 that the other respondents present a limited to strong need in the majority of topics, with the exception of "Developing indicators and monitoring", where the other respondents express by 25% no need for further learning.

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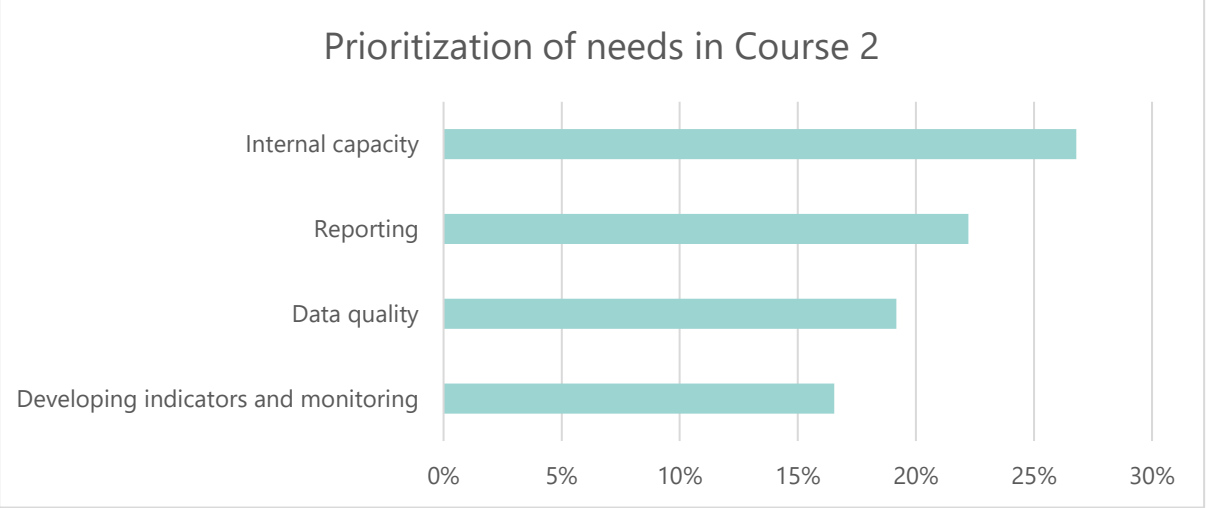

Figure 29: Average percentages of the strong needs of the other types of respondents per topic

Based on Figure 28 the topics that present the strongest need are the following:

- Internal capacity (27%)
- Reporting (22%)

4.3.3 Indicators and strategies on adaptation to Climate Change

The needs for this Course are presented below:

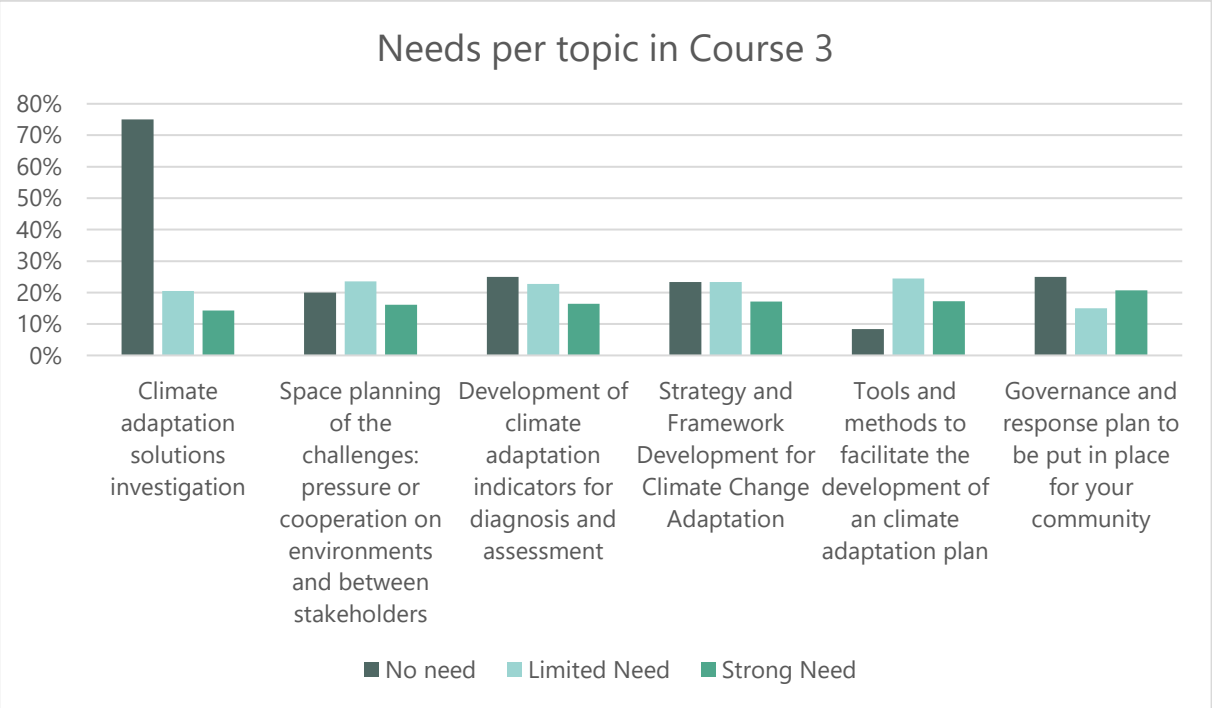

Figure 30: Average percentages of needs' levels per topic

As it is observed from Figure 29, the other respondents present a limited to no need in the majority of topics, with the exception of "Tools and methods to facilitate the development of a climate adaptation plan", where the other respondents express by 17% strong need for further learning. It is also noteworthy that for the topic of "Climate adaptation solutions investigation" the other respondents express by 75%

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no need for further learning.

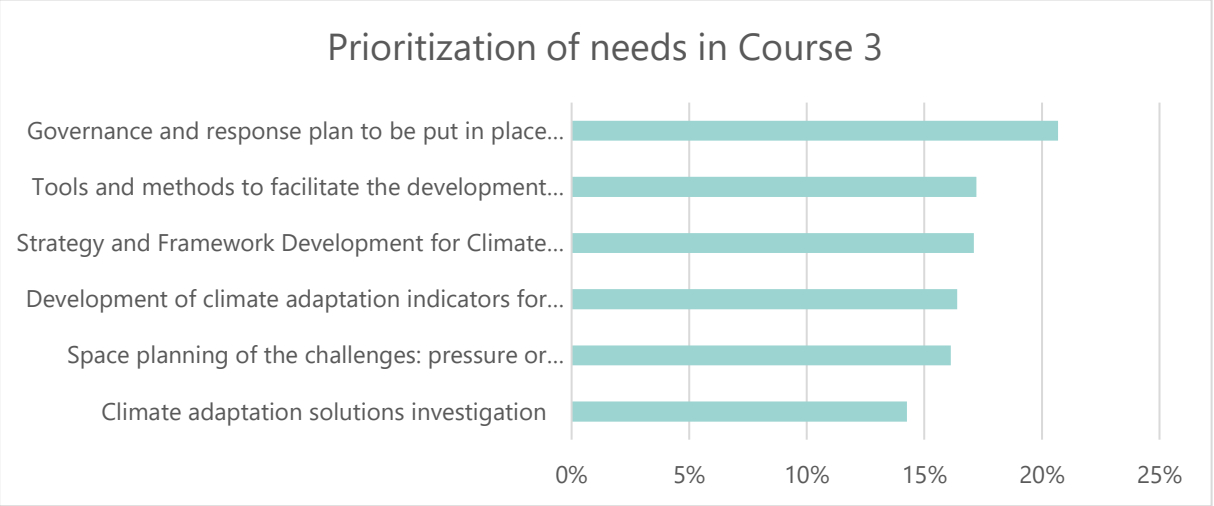

Figure 31: Average percentages of the strong needs of the other types of respondents per topic

Based on Figure 30 the topics that present the strongest need are the following:

- Governance and response plan to be put in place for your community (21%)
- Tools and methods to facilitate the development of a climate adaptation plan (17%)
- Strategy and Framework Development for Climate Change Adaptation (17%)

4.3.4 Data display, dissemination and validation by end users

For the fourth Course of the survey, concerning Data display, dissemination and validation by end users, the results are presented below:

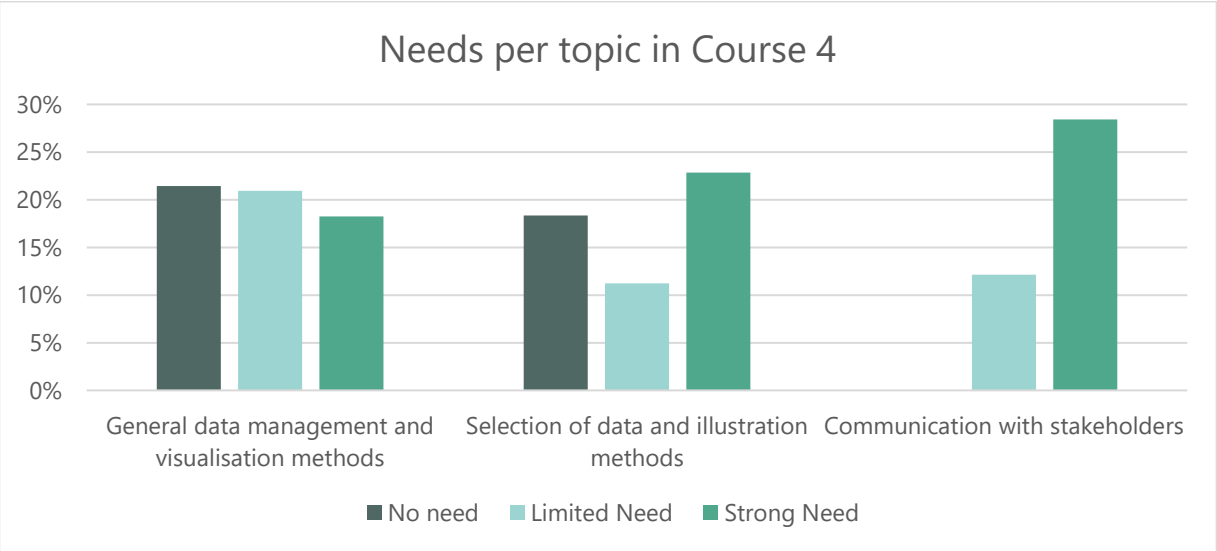

Figure 32: Average percentages of needs' levels per topic

It is apparent from Figure 31 that the other respondents present a limited to strong need in the majority of topics, with the exception of "General data management and visualisation methods", where the other respondents express by 21% no need for further learning.

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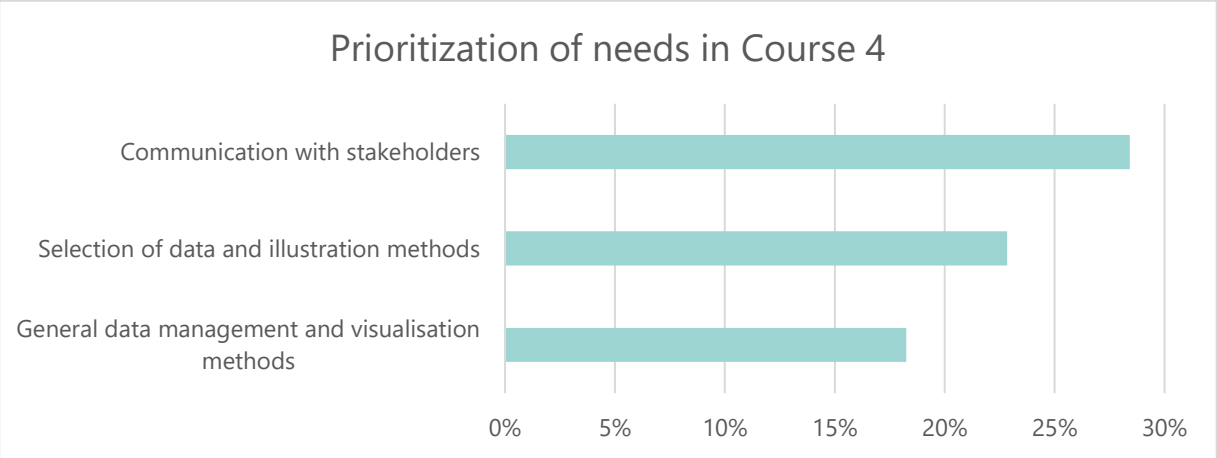

Figure 33: Average percentages of the strong needs of the other types of respondents per topic

Based on Figure 32 the topic of "Communication with stakeholders" presents the strongest need with provincial/regional authorities expressing by 28% a strong need.

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5 Conclusions

The results of the needs assessment survey are of high importance in order to explore and quantify the needs of ENERGee Watch participants. The learning material will be tailored to the mentees' needs and the capacities of the mentors, thus the needs assessment survey will facilitate its development and the definition of the learning objectives for each course.

In general, based on the results from the survey, there seems to be a need for further learning on multiple topics included in the survey. In particular, it is important to point out that of all the target groups, the energy agencies were the only one that consistently presented limited to no need for further learning in the vast majority of courses and course-specific topics. It is noteworthy that although the energy agencies have the technical know-how concerning the tools for data analysis and visualisation there seems to be a limited capacity as far as the communication with stakeholders for data acquisition is concerned.

Across the different target groups of the survey, a diversity is presented as far as the strong need for the courses of the questionnaire is concerned. In particular, Local Authorities expressed a strong need in Course 1 ["Energy Data collection (acquisition and treatment)"], while Energy Agencies and regional authorities expressed a stronger need in Course 3 ("Indicators and strategies on adaptation to Climate Change"). As a result, the learning material that will be developed for each course could be tailored to the respective target group or include different learning aspects for each.

As far as the specific topics that need to be addressed in the development of the learning material, from Course 1 the topics of "Data Management", "Transport" and "Waste" prove a strong necessity for further learning. From Couse 2 the topics of "Internal Capacity", "Reporting" and "Developing indicators and monitoring" present the stronger need, while from Course 3 there are the topics of "Climate adaptation solutions investigation", "Governance and response plan to be put in place for your community" and "Strategy and Framework Development for Climate Change Adaptation" with the greatest need of focus in the development of the learning material. Finally, from Course 4 the topics that present the strongest need for further learning are: "General data management and visualisation methods" and "Selection of data and illustration methods".

ENERGee Watch exploiting the expertise of its high-skilled mentors and researchers intends to address the needs identified in the analysis through the design and development of an effective and replicable learning programme. The findings of this study will form the learning objectives of its course and will support the developers of the learning material to create representative training sessions.

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Annex 1: ENERGee Watch Survey

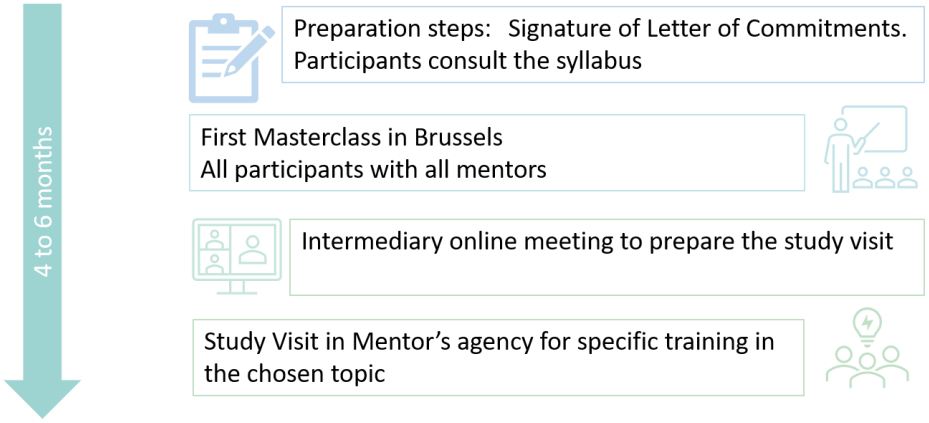
Fields marked with * are mandatory.

Welcome to the Energee Watch online survey!

Objective: This survey aims at assessing the needs of cities, regions and their agencies in terms of climate and energy data collection, monitoring and display. It will help us design a peer learning programme where mentors from energy agencies will share their knowledge and experience on the above listed topics.

The peer learning programme will be carried out in English, free of charge, and travel costs for one Masterclass in Brussels and a site visit will be reimbursed. Please note these physical meetings might be replaced by online activities due to Covid-19 situation. There will be a total of 3 learning cycles, starting respectively in spring 2021, autumn 2021 and spring 2022.

The Peer learning core programme should last from 4 to 6 months. Additional peer review webinars will be organised for interested participants.



1 year after
Peer-review webinar gathering participants from different training sessions to allow for networking and peer review

Benefit: If you are interested in participating in the peer learning programme, completing this survey will exempt you from filling in an application form.

In practice: The survey consists of 2 main sections:

Section 1: Administrative information and learning methods

Section 2: Needs assessment in 4 topics:

- Energy data collection (treatment and acquisition)
- Monitoring, Reporting, Verification : follow-up of implementation of actions
- Indicators and strategies on adaptation to climate change
- Data display, dissemination and validation by end-users

It should only take around 15 minutes to complete.

You are kindly asked to self-assess your organisation's knowledge and identify areas of potential improvement in collecting, analysing, monitoring and disseminating energy and climate data.

You need to answer all questions. While completing the survey you will be able to save your answers and resume later.

You can download a pdf version of the survey in the right-hand column. (e.g. for coordination with colleagues within your organisation)

In case of practical questions about the survey, please contact elodie.bossio@fedarene.org

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Confidentiality: All data collected through this online survey will remain confidential and we are complying with the GDPR. You can consult our privacy policy on this link: https://energee-watch.eu/privacy-policy/ The data you provided will be stored only with regards to the answers provided. Nobody will be named in the analysis of data, although direct quotes from your comments may be used in reports. Your answers will only be used to help us to provide you with increased and better support. Your email address will be stored to send you further information about the Energee Watch programme. If you want to opt out from our communication please send us an email: energeewatch@gmail.com

Section 1: Administrative information and learning methods

*Last Name

*First name

*Name of your organisation

*Email

Mobile phone number

*You represent

- A local authority (city / municipality / urban community...)
- A provincial / regional authority (incl. as well counties)
- An energy agency
- Other

*If other, please specify

Your Country

- Austria
- Belgium
- Bulgaria
- Croatia
- Cyprus
- Czechia
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland
- Italy
- Latvia
- Lithuania
- Luxembourg
- Malta
- Netherlands
- Poland
- Portugal
- Romania
- Slovak Republic
- Slovenia
- Spain
- Sweden
- Other

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If Other, please specify the country. Please note that only H2020 associated countries are eligible.

Are you interested in participating to the peer learning programme?

Yes I am interested in applying and confirm that you can use the data submitted as application form
No I am not interested (NB this won't have any impact on the rest of the survey)

* Our initial, planning involved a mix between online sessions and physical meetings. Due to the COVID-19 pandemic, we might not be able to carry out the programme as planned. Could you please express your preferences if our programme were to be carried out entirely ONLINE.

- ☐ 1 to 2 hours webinars with assignments (before and after each session you would have some homework)
- ☐ 1 to 2 hours webinars sessions without assignments
- ☐ Online (recorded) courses that you can read through at your own pace
- ☐ A mix of recorded courses and live online sessions
- ☐ I would be interested in the learning programme only if we can have physical meetings

☐ I understand that the programme will be held in English only and I confirm that I will be able to follow in English without interpretation.

Section 2: Needs assessment

1: Energy Data collection (acquisition and treatment)

Please indicate, based on your professional experience, **how much additional capacity-building is needed for your organisation in each of these areas:**

Please select one answer per row

How much capacity building would you need in the following areas?	0- No need	1 - Limited need	2 - Strong need
* Collection of basic statistical data, e.g., population, CO2-emission factors,	○	○	○
* Data collection: Municipal buildings, equipment, facilities	○	○	○
* Data collection: Tertiary buildings	○	○	○
* Data collection: Residential buildings	○	○	○
* Data collection: Buildings renovation	○	○	○
* Data collection: Public lighting	○	○	○
* Data collection: Public transport	○	○	○
* Data collection: Private and commercial transport	○	○	○
* Data collection: Municipal fleet	○	○	○
* Data collection: Agriculture, forestry, fisheries	○	○	○
* Data collection: Energy poverty	○	○	○
* Data collection: Local renewable energy production	○	○	○
* Data collection: Waste	○	○	○
* Identification and mapping of key stakeholders that may provide or facilitate access to energy data	○	○	○
* Calculation methodologies of greenhouse gas emissions	○	○	○

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* Choosing an accounting method (final energy, primary energy, Life Cycle analysis)	○	○	○
* Human resources and funds needed for acquiring relevant data, technical tools and systems	○	○	○
* Identification of data platforms and other data sources (when data is available online)	○	○	○
* Collaborating with energy data providers to access reliable data	○	○	○
* Making estimates in case of missing data or low-quality data	○	○	○
* Establishing 2030 and 2050 projections and forecasts for energy and climate targets.	○	○	○
* Preparing a roadmap of actions towards achieving the 2030 and 2050 targets.	○	○	○

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Is there something else you would like to point out as a need? Or is there a specific sector in which you would like this topic to focus on?
If yes, which are the need(s) and/or sector(s)?

2. Monitoring, Reporting, Verification: follow up on implementation of actions

Please indicate, based on your professional experience, how much additional capacity-building is needed for your organisation in each of these areas:

Please select one answer per row

How much capacity building would you need in the following areas?	0 - no need	1 - limited need	2 - strong need
* Development of internal administrative structures for the successful implementation and monitoring of sustainable energy action plans (roles, support, prioritization, budgeting, and tools)	○	○	○
* Providing periodic updates of energy and GHG emissions profiles for Baseline/Monitoring Emission Inventories at regional or local community levels	○	○	○
* Defining progress-based indicators allowing evaluation of the Sustainable energy action plan (e.g: kms of cycle pathways, number of public passengers per year)	○	○	○
* Defining other indicators: Socio-economic indicators (jobs created, impact on fuel poverty) Sustainable energy action plan monitoring (performance based indicators in addition to Monitoring Emission Inventories)	○	○	○
* Processes to verify the accuracy and reliability of datasets	○	○	○
* Improvement of data quality	○	○	○
* Development of business plans, feasibility and environmental analysis for sustainable energy projects	○	○	○
* Reporting in various reporting systems (national, Covenant of Mayors, CDP, …)	○	○	○
* Engaging and involving local actors into the successful implementation and monitoring of action plans	○	○	○

Is there something else you would like to point out as a need? Or is there a specific sector in which you would like this topic to focus on?
If yes, which are the need(s) and/or sector(s)?

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3. Indicators and strategies on adaptation to Climate Change

Please indicate, based on your professional experience, how much **additional capacity-building** is needed for your organisation in each of these areas:

Please select one answer per row

How much capacity building would you need in the following areas?	0 - no need	1 - limited need	2 - strong need
* Identifying what adaptation to climate change is			
* Knowing how to locate climate change issues in my territory			
* Setting expectations for your work on climate adaptation			
* Identification of climate change and adaptation stakeholders within the community			
* Development of maps illustrating the risks / vulnerabilities of a territory			
* SWOT analysis for adaptation in the given territory; tagging of specific actions in favour of adaptation in the local climate plan			
* Define indicators on adaptation to climate change helping the diagnosis (physical impacts like extreme heat/cold, or socio-economic data…)			
* Identification of climate adaptation solutions to integrate in an action plan			
* Knowledge of possible adaptation solutions			
* Tools to prepare strategic guidelines that will inform the development of an adaptation plan and other adaptation initiatives			
* Including climate change adaptation into local climate plans/ articulating adaptation and mitigation			
* Defining adaptation targets until 2030, 2050			
* Defining indicators on adaptation to climate change helping the monitoring and the assessment / articulating mitigation and adaptation / …			
* Mobilisation of human resources			
* Facilitation of a multi-stakeholder reflection on climate adaptation solutions			
* Governance and response plan to be put in place for your community			
* Space planning of the challenges: pressure or cooperation on environments and between stakeholders			

Is there something else you would like to point out as a need? Or is there a specific sector in which you would like this topic to focus on?
If yes, which are the need(s) and/or sector(s)?

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4. Data display, dissemination and validation by end users

Please indicate, based on your professional experience, **how much additional capacity-building is needed** for your organisation in each of these areas:

Please select at least one answer per row

How much capacity building would you need in the following areas?	0 - no need	1 - limited need	2 - strong need
* Graphical and tabular data visualisation of energy/climate data	○	○	○
* Visual representation of energy potentials (geothermal energy or potential for district heating systems etc.…)	○	○	○
* Identifying stakeholders' needs and expectations in energy and climate data sharing at regional and local levels	○	○	○
* Identifying typical energy or emissions-related targets and uses	○	○	○
* Identifying the most relevant data to be displayed and to best communicate a message	○	○	○
* Using and representing data: various methods and tools illustrated with concrete examples (charts, geographical representation, Sankey diagrams, online tools)	○	○	○
* Disseminating data among different stakeholders' groups: various methods and tools	○	○	○
* Demonstrating the benefits to end-users, data providers and political representatives	○	○	○
* Dealing with the data" ownership", commercial data sensitivity, data privacy	○	○	○

Is there something else you would like to point out as a need? Or is there a specific sector in which you would like this topic to focus on?
If yes, which are the need(s) and/or sector(s)?

* After having seen the possible content of the peer learning programme, could you please let us know for which topic you would like to apply?

between 1 and 4 choices

- ☐ 1 Energy Data collection (acquisition and treatment)
- ☐ 2 Monitoring, Reporting, Verification: follow up on implementation of actions.
- ☐ 3 Indicators and strategies on adaptation to Climate Change
- ☐ 4 Data display, dissemination and validation by end users

Before starting the learning programme, please briefly describe what problems you currently face which have driven you to undertake this training scheme, what capabilities you would like to have improved upon at the end of the training period, and please provide specific examples if possible, to allow us to better tailor our training modules to you, the participant.

Text of 2 to 600 characters will be accepted.

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