Follow-up table with comments and responses given

Methodology	Part	Subject	From	Comment	Response
Both	Methodology	General comments on the methodology	Icade	The methodologies are rather ambitious, which may make it difficult to follow at first, but it should push companies to be ambitious as well and develop the organisation/strategy necessary to achieve their goals	An experimentation phase is planned and will help test the methodology and collect feedbacks in order to improve the methodologies and make them more operational
Building construction	Methodology	General comments on the methodology	Bouygues Construction	We think that the methodology is very relevant scientifically / intellectually speaking, but is absolutely not operational on the quantitative indicators	
Building construction	Methodology	General comments on the methodology	EIB	It is very complicated. I wonder if the same effect can't be achieved easier.	
Building construction	Methodology	General comments on the methodology	Ad Hoc Architecture	It is hard to check the total relevancy of the methodology without testing it. In the previous experimental phase, the methodology wasn't given. We will have a better view on it the next time we'll update our strategy!	
Building construction	3. Scope	Business Segments	Bouygues Construction	This decomposition is very macro, and trajectory on the whole "office" segment could be really not relevant. There are great gaps in terms of CO2 emissions between HRB and small offices (for example)	Not editable to date: a more detailed breakdown would lead to too much complexity in the methodology. Also, the adaptation of decarbonization pathways for such segments is very difficult.
Building construction	3. Scope	Business Segments	EIB	Clever focus on a limited number of business segments.	-
Building construction	3. Scope	Geographical scope	Bouygues Construction	No mention of Australia / South America / Russia / Africa (except South Africa)	A modification of the methodology is planned, to take into account all benchmarked geographical regions and apply a proxy approach for regions without specific benchmarks Benchmarks and pathways have been calculated for : Europe (EU + 28), ASEAN, Brazil, China, India, Russia, South Africa, United States Data and sources used: IEA ETP 2017 2DS scenario, Ratios of Energy Intensities, CO2 of electricity mix, EU Buildings Database, Structural choices in geogr. zones (IEA), Residential and Services pathways (IEA), Power pathways (IEA), Industry pathways (IEA) For materials: central and starting point calculated for France, for each segment (2018)
Building construction	3. Scope	Geographical scope	EIB	Very strong focus on France	- Starting values for materials impact are taken from a French Observatory, but the LCA methodology is based on CEN standards (EN 15804 and 15978, both under revision in Jan. 2019). In the methodology report, it is possible to focus more on assumptions drawn from CEN standards and a little less of France method and data. The results for construction materials are adapted/translated to other countries. - For In-use energy consumptions, we rely on French and European data. In other large geographic zones there are no distinction of typologies inside Residential and Services categories (IEA ETP 2017).
Building construction	3. Scope	Energy uses	Bouygues Construction	It would be more relevant to define trajectory only based on the regulated Energy uses. In France it is not mandatory to take into account the unregulated Energy uses, nor it is easy to calculate. In other parts of the world, this could be very difficult to tackle	4 major energy end-uses: space heating, space cooling, lighting, water heating (in kg CO2/m2.year) - The “non-regulated” uses are not considered. - Although included in “regulated uses”, ventilation is not included in the scope, because ventilation is merged with “appliances” in IEA data. This will be precised in the methodology.
Building construction	3. Scope	Exclusion/inclusion of companies which carry out projects in separate lots, opposed to general contracting	Bouygues Construction	The methodology behind ACT is hybrid because it force to link the lifecycle of the product, to the company who produce it. The problem is that for a construction company, it sometimes just intervene on a small aspects of a building (some lots), thus is not responsible of the whole life cycle of a building. Other problem is that a general contractorcompany, still has a third of its activities in separated lots type of project the answer to ACT for this kind of company should be to exclude the projects that are separated lot	In this first version on ACT-Building, it is not possible to consider the carbon impact of materials on a limited number of lots. - Nevertheless, background data were produced lot by lot, that might facilitate in a future version the inclusion of companies working in “separate lots”. We will keep at first this version (i-e excluding separate lots) but this point will be discussed and feedbacks will be welcome during the experimentation phase.
Building construction	4. Boundaries	Reporting boundaries	EIB	To what extent can a construction company influence the carbon impact of the use phase of a building? If they don't own the building afterwards. And why not include the actual emissions during the construction process?	The design/construction phases will undeniably have an impact on the emissions occurring during the use phase, the consideration of regulated uses too.
Real estate	4. Boundaries	Reporting boundaries	PERIAL	The definition of SCOPE 3 given in the paragraph "Common and private parts" is questionable and is debated in the real estate sector. We speak of SCOPE 3 when we make the BEGES of the owning entity but we speak of scope 1 and 2 when we make the BEGES of the building.	Here we speak about the Scope 3 of the building (all consumptions) but not of the company. For instance the emissions related to users transport are not included. To avoid any confusion, the notion of "scope" will be deleted in this part.
Building construction	4. Boundaries	Temporal boundaries	Icade	In the construction sector it is unclear that the in-use phase considered is 50 years. It is mentioned for the first time on p.44 but should be explained much earlier	The 50 years period is only used for the lock-in emissions indicator. For the alignment indicators, the methodology includes the expected emissions intensity for at the reporting year or reporting year +5 years depending on the indicator, but it doesn't take assess the real use phase of the building. This hypothesis will be deleted from the introduction and precised later in the methodology, so that it is clear it is used for one indicator only.
Building construction	4. Boundaries	Temporal boundaries	Bouygues Construction	For France, problem is the EPD use for LCA include automatically the whole life cycle of the products, thus the building LCA will include all these phases. It would be very difficult to "exclude" distribution phases from the dataset (or the end of life phase).	Full LCA is considered in our benchmarks and pathways, it is not a simplified LCA (as mentioned in chapter 4). Chapter 4 to be modified / clarified.
Building construction	5. Construction of the data	5.3 Performance indicators - Metric system	Bouygues Construction	Floor area is not an "universal" metric system, and designing a conversion system between all of the countries seems very difficult. there is no easy metric apart the floor area for an international system like ACT	There is no universal measuring system. This is the best proposal (+ application of a conversion factor).
Building construction	5. Construction of the data	1. Target indicators BC1.1 Alignment of owned buildings reduction targets	Bouygues Construction	Ok, only if the "owned" offices does not include the rent building	Even if companies rent their offices, they can choose the buildings regarding certain criteria such as energy efficiency, for example. As this indicator highlights the exemplarity of the company, rent buildings will also e considered.
Building construction	5. Construction of the data	1. Target indicators BC1.1 Alignment of owned buildings reduction targets (rationale)	Bouygues Construction	we think that a majority of companies (all sectors mingled) rent there offices...	
Building construction	5. Construction of the data	1. Target indicators BC1.2 Alignment of new buildings delivered (use phase) reduction target	Icade	"use phase" duration is not defined - needs to be clear it is 50 years	The 50 years period is only used for the lock-in emissions indicator. For the alignment indicator 1.2 (related to objectives), the methodology includes the expected emissions intensity at the reporting year + 5 years, but it doesn't take assess the real use phase of the building. This hypothesis will be deleted from the introduction and precised later in the methodology, so that it is clear it is used for one indicator only.
Building construction	5. Construction of the data	1. Target indicators BC1.3 Alignment of renovated buildings (use phase) reduction targets	Icade	what duration of "use phase" for an renovated building? Is it still 50 years (building life cycle in general) or should one apply a ratio according to the age of the building? It may depend not the type of renovation (retrofit, refurbishment or heavy renovation)	The 50 years period is only used for the lock-in emissions indicator. For the alignment indicator 1.3 (related to objectives), the methodology includes the expected emissions intensity at the reporting year + 5 years, but it doesn't assess the real use phase of the building.
Building construction	5. Construction of the data	1. Target indicators BC1.4 Alignment of new buildings (materials) reduction targets (rationale)	Bouygues Construction	the maturity of LCA (EPD & building LCA) is not sufficient and it will be very difficult to use any results in comparison with a trajectory.	This indicator is related to climate objectives, not the real performance on climate even if both aspects are linked. Materials represent a major part of CO2 emissions of a new building. It is an ambition of the ACT method to include products LCAs. CEN standards allow it, even if they evolve a little. In France making a building LCA is possible and more that 600 buildings have made it on a voluntary basis (E+C- experiment) and the coming energy & carbon regulation for new buildings will make building LCA mandatory. Furthermore, the European project called LEVEL(s) and related experiment aims to spread building LCA calculation across Europe, based on EN standards.

Building construction	5. Construction of the data	1. Target indicators BC1.4 Alignment of new buildings (materials) reduction targets	Bouygues Construction	This indicator implies to make an LCA on every projects, with a common database (EPD & services), which is not feasible in our opinion. In France, we are starting to do it, but not all countries have this level of maturity. Moreover, the maturity of LCA (EPD & building LCA) is not sufficient (uncertainties) and it will be very difficult to use any results in comparison with a trajectory.	In order to facilitate production of building LCAs and valid / consistent comparison to benchmarks, it is feasible to develop a simplified tool based on a statistical analysis of building LCAs stored in the E+C- Observatory. It will produce approximative but relevant LCAs data (CO2 emissions) with a limited number of questions regarding materials choices, with no or a very limited use of LCA methods and EPD databases. This simplified tool is not available for the V1 of ACT-building method, but may be produced by CSTB, if ADEME and CDP agree, and then may be tested by construction and real estate actors.
Building construction	5. Construction of the data	1. Target indicators BC1.5 Time horizons of targets	Bouygues Construction	95 % of the emissions seems very demanding	When less than 95%, the coverage rate will be used. The methodology aims at encouraging companies to set ambitious goals. However, this % could be refined after the experimentation phase. Nonetheless, this threshold is in line with other ACT methodologies such as the Auto manufacturing methodology.
Building construction	5. Construction of the data	3. Intangible investments BC3.1 R&D in Climate Change mitigation technologies	ADEME	(general) Precise that the maturity matrix is a "by default approach"	OK
Building construction	5. Construction of the data	3. Intangible investments BC3.1 R&D in Climate Change mitigation technologies (rationale)	ADEME	(technical) in the list of climate mitigation technologies, add "that reduce GHG emissions" after "development of a unique assembly..." and add "with low carbon footprints" after "experimentation with new buildings materials"	OK
Building construction	5. Construction of the data	3. Intangible investments BC3.1 R&D in Climate Change mitigation technologies (rationale)	Icade	It would make sense to look at the % R&D projects linked to CC mitigation tech compared to total number R&D projects and % of R&D budget dedicated to CC projects compared to total R&D budget. I fear that if we do just a budget approach (without considering the number of projects) the result will be biased. Some projects do not require much investment (because of subsidies, partners, etc.) and could be undervalued.	The budget approach is more relevant for large companies and avoids devaluing large R&D projects dedicated to climate change mitigation. Feedback from the future experimentation will allow us to challenge this approach.
Building construction	5. Construction of the data	3. Intangible investments BC3.1 R&D in Climate Change mitigation technologies (rationale)	PERIAL	could be difficult to identify is a R&D project is climate related (direct or indirect)	That is why we propose a list of project examples that fall within this framework. The experimentation phase will allow us to verify the completeness of those lists.
Building construction	5. Construction of the data	4. Sold product performance indicators BC 4.1 Alignment of carbon performance trend for new buildings (use phase)	ADEME	(editorial) : replace "rs12" by "rxx"	OK
Building construction	5. Construction of the data	4. Sold product performance indicators BC 4.2 Low carbon buildings share	ADEME	(technical) : how is determined the benchmark CBLCB ? Please precise. / As it is a gap analysis at the reporting year, we need to start the company benchmark CBLCB and BAULCB before this reporting year, otherwise the gap is zero. In Auto and Electricity, we decided to start the benchmarks 5 years before the reporting year in order to assess to gap at the reporting year (see last versions of methodologies). Please modify.	Modified
Building construction	5. Construction of the data	4. Sold product performance indicators BC 4.2 Low carbon buildings share	ADEME	(editorial) the low carbon building definition is based on 3 perspectives, not two as mentioned / (general) the last point has to be validated.	The two perspectives are : energy efficiency & low carbon The 3rd point is not a 3rd perspective but should be a normal paragraph giving precisions (to be corrected) Finally the method has changed since the launch of the consultation, the values in the XL files are today only based on Energy Intensity (EI) The reason is a constraint of time and budget in the development of the XL data, so the method has been simplified => BC 4.2 part to be modified
Building construction	5. Construction of the data	4. Sold product performance indicators BC 4.2 Low carbon buildings share	Icade	Is it necessarily "sales" of low carbon delivered buildings or "construction of"? If the building isn't sold during the reporting period (especially with regards to residential buildings with sales by apartment) it wouldn't count, and yet the low carbon building would still influence the overall footprint.	“Delivered” will be precised as the point in time where the building is included in the reporting period.
Building construction	5. Construction of the data	4. Sold product performance indicators BC 4.3 Renovated buildings subject to thermal renovation share	ADEME	(technical) the benchmark here is not well defined and the definition of thermal renovation needs to be finalized. Please progress on this point / (technical) Like 4.2, we need to start the BAURBTR and CBRBTR 5 years before the reporting year if we want to do a gap analysis at the reporting year.	- OECD countries : Energy abatement of 40% (perimeter of 5 regulated uses) - Non-OECD countries : Energy abatement of 30% only
Building construction	5. Construction of the data	4. Sold product performance indicators BC 4.4 Emissions lock-in	Bouygues Construction	this indicator is quite difficult to understand. not sure it will be relevant if it's too complicated to explain and understand	To be better explained with an example.
Building construction	5. Construction of the data	4. Sold product performance indicators BC 4.4 Emissions lock-in	ADEME	(technical) it seems we have an inconsistency between the 25 year period of study and the default value of 30 years after the reporting year. Please modify.	To be modified.
Building construction	5. Construction of the data	4. Sold product performance indicators BC 4.4 Emissions lock-in (rationale)	Icade	Is it necessarily "sales" of low carbon delivered buildings or "construction of"? If the building isn't sold during the reporting period (especially with regards to residential buildings with sales by apartment) it wouldn't count, and yet the low carbon building would still influence the overall footprint.	“Delivered” will be precised as the point in time where the building is included in the reporting period.
Building construction	5. Construction of the data	5. Management indicators BC 5.5 Climate change scenario testing	Icade	The term "element" is not clear	The business segments that generate more than 50% of company's revenues (in total)
Building construction	5. Construction of the data	6. Supplier engagement indicators BC 6.2 Activities to influence suppliers to reduce their GHG emissions	Bouygues Construction	the difference between 6.1 and 6.2 is not clear.	The first indicator is related to strategies and the second to activities.
Building construction	5. Construction of the data	7. Clients engagement indicators BC 7.2 Activities to influence tenants to reduce their GHG emissions	Bouygues Construction	difference between 7.1 and 7.2 is not clear	The first indicator is related to strategies and the second to activities.
Building construction	5. Construction of the data	8. Policy engagement indicators BC 8.1 Company policy on engagement with trade associations	EIB	Are you not moving very far away from where the company is impacting the climate?	Trade associations can indirectly influence companies' climate policies. It is consistent with the ACT philosophy , ACT framework and ACT guidelines. We can also find this indicator also in other sector methodologies.
Building construction	6. Assessment	6.1 Sectoral benchmark - Geographical areas coverage	EIB	Strong focus on France	- Starting values for materials impact are taken from a French Observatory, but the LCA methodology is based on CEN standards (EN 15804 and 15978, both under revision in Jan. 2019). In the methodology report, it is possible to focus more on assumptions drawn from CEN standards and a little less of France method and data. - For In-use energy consumptions, we rely on French and European data. In other large geographic zones there are no distinction of typologies inside Residential and Services categories (IEA ETP 2017).
Building construction	6. Assessment	6.1 Sectoral benchmark - Reference pathway classification	Icade	Construction: the reference pathway does not include "ventilation" but the company pathway does since it is included in the 5 regulated uses. Real-estate: the reference pathway doesn't include "ventilation" but the company pathway does since it include all uses (and the ventilation can be an important source of consumption in commercial buildings). Also, it is unclear why district heating/cooling should be excluded from Scope 2 since the reference pathways are country specific - the countries that have it should be able to include it...	- In this first version of ACT-building, the district heating/cooling is not included in scope 2, only electricity is included. - We have IEA data on « commercial heat » but only for large zones, we have no data country by country. - As electricity is the major part of scope 2, this simplification is not very impacting, excepted in some countries where district networks are used in a significant way. - Electricity-mix is defined at a national scale, where district heat/cold networks are local and their characteristics may vary a lot from one district to another.
Building construction	6. Assessment	6.1 Sectoral benchmark - Company benchmark	Icade	Construction: for renovation, only the in-use consumption indicator is considered - which means that heavy renovation or rehabilitation should be considered as "construction"? Some renovation are important and the materials are significant, so maybe the types of renovation should be specified. (We have an example of a building that was used for storage and is changed into commercial space so w added floors and changed the roof, so the emissions linked to the materials should be evaluated)	Carbon related to 4 major energy end-uses: space heating, space cooling, lighting, water heating) (in kg CO2/m2.year) The impact of materials newly installed in renovated buildings are not considered in the method (difficult to benchmark because it may vary from few materials, i.e. finishing products, to all the materials excepted kept structural elements) - The “non-regulated” uses are non considered, ventilation is excluded (only 4 main uses) - Carbon from new products (LCA) is ignored (to include this aspect would complexify the method)
Both	6. Assessment	6.3 Weightings	ADEME	Construction and Real Estate : to be consistent with other ACT methodologies, put 7.1 at 1% and 7.2 at 2%.	OK

Building construction	6. Assessment	6.1 Sectoral benchmark - Description of the benchmark (lines 321-322)	ADEME	(technical) : I'm not sure to understand the sentence « if the methodology is only applied to a local sample, the associated benchmarks shall still be compatible with global low-carbon scenarios.	the sentence will be clarified as follows : « if the methodology is only applied to a local country or state, the associated benchmarks shall still be compatible with the IEA low-carbon scenario (2DS) for the geographic zone".
Building construction	6. Assessment	6.1 Sectoral benchmark - Company of the benchmark (line 391)	ADEME	for me we need to keep them separated as they are two separated indicators.	OK
Building construction	6. Assessment	6.1 Sectoral benchmark - Available reference pathways (table after line 404)	ADEME	the last line of the table shall be deleted because it is too "open"	OK
Building construction	6. Assessment	6.2 Quantitative benchmarks used for the indicators - In-use consumption	ADEME	(editorial) : Precise that "EI" is for Energy Intensity	OK
Building construction	6. Assessment	6.2 Quantitative benchmarks used for the indicators - In-use consumption	ADEME	(technical) : precise that Energy Intensity is used to allocate GHG emissions intensity per country and building types and that it is a proxy with associated limitations	A sentence has been added to explain
Building construction	6. Assessment	6.2 Quantitative benchmarks used for the indicators - In-use consumption	ADEME	(editorial) : this part is quite difficult to read and understand. Could it be possible to simplify this part (like material part) and to provide an example in annex ?	This chapter has been simplified and examples are provided in the appendix
Building construction	6. Assessment	6.2 Quantitative benchmarks used for the indicators - Materials benchmarks	ADEME	(technical) : those benchmarks are based on French database for the carbon footprints of products and there is no evolution of the carbon footprints over the time, if I understood well. Please be clear with those limitations.	
Building construction	6. Assessment	6.2 Quantitative benchmarks used for the indicators - Materials benchmarks	ADEME	materials benchmarks (technical) : I would also appreciate an example of a benchmark in annex.	Examples of pathways have been added
Real estate	6. Assessment	6.1 Sectoral benchmark - Description of the benchmark (lines 327-328)	ADEME	(technical) : I'm not sure to understand the sentence « if the methodology is only applied to a local sample, the associated benchmarks shall still be compatible with global low-carbon scenarios.	the sentence has been clarified as follows : « if the methodology is only applied to a local country or state, the associated benchmarks shall still be compatible with the IEA low-carbon scenario (2DS) for the geographic zone".
Real estate	6. Assessment	6.1 Sectoral benchmark - Available reference pathways (table after line 385)	ADEME	(technical) : the last line of the table shall be deleted because it is too "open"	OK
Real estate	6. Assessment	6.2 Quantitative benchmarks used - Scope 1&2	ADEME	(editorial) : Precise that "EI" is for Energy Intensity	OK
Real estate	6. Assessment	6.2 Quantitative benchmarks used - Scope 1&3	ADEME	(technical) : precise that Energy Intensity is used to allocate GHG emissions intensity per country and building types and that it is a proxy with associated limitations.	OK
Real estate	6. Assessment	6.2 Quantitative benchmarks used - Scope 1&4	ADEME	(editorial) : this part is quite difficult to read and understand. Could it be possible to simplify this part, by describing clearly the needs and by popularizing the model developed to get the benchmarks ?	This part has been simplified. Formulas are now in the appendix.
Real estate	11. Appendices	Example Reference Pathway (line 648)	ADEME	(editorial) : precise that the example is for multi-family housing.	OK