

# **Hotel Carbon Measurement Initiative (HCMI) 1.0**

MIT / LEAP webinar

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# Who we are

- The International Tourism Partnership brings together the world's leading international hotel companies to provide a voice for environmental and social responsibility in the industry.
- World Travel & Tourism Council is the global authority on the economic and social contribution of Travel & Tourism with the Chairs, Presidents and Chief Executives of the world's leading, private sector Travel & Tourism businesses as its Members.

Comparing carbon footprints can  
be like...



# What is the Hotel Carbon Measurement Initiative?

Initiative to unite hotel industry efforts to calculate and communicate carbon emissions from guest rooms and meeting space in a uniform way

# Why is the Initiative significant?

- A practical response to a customer need
- Developed by the industry, for the industry and its corporate customers
- Consistent voluntary framework to respond to corporate RFPs through standardised methodology
- Streamlines hotel industry language in communicating carbon emissions
- Creates transparency in reporting
- If you can't measure it, it is hard to manage

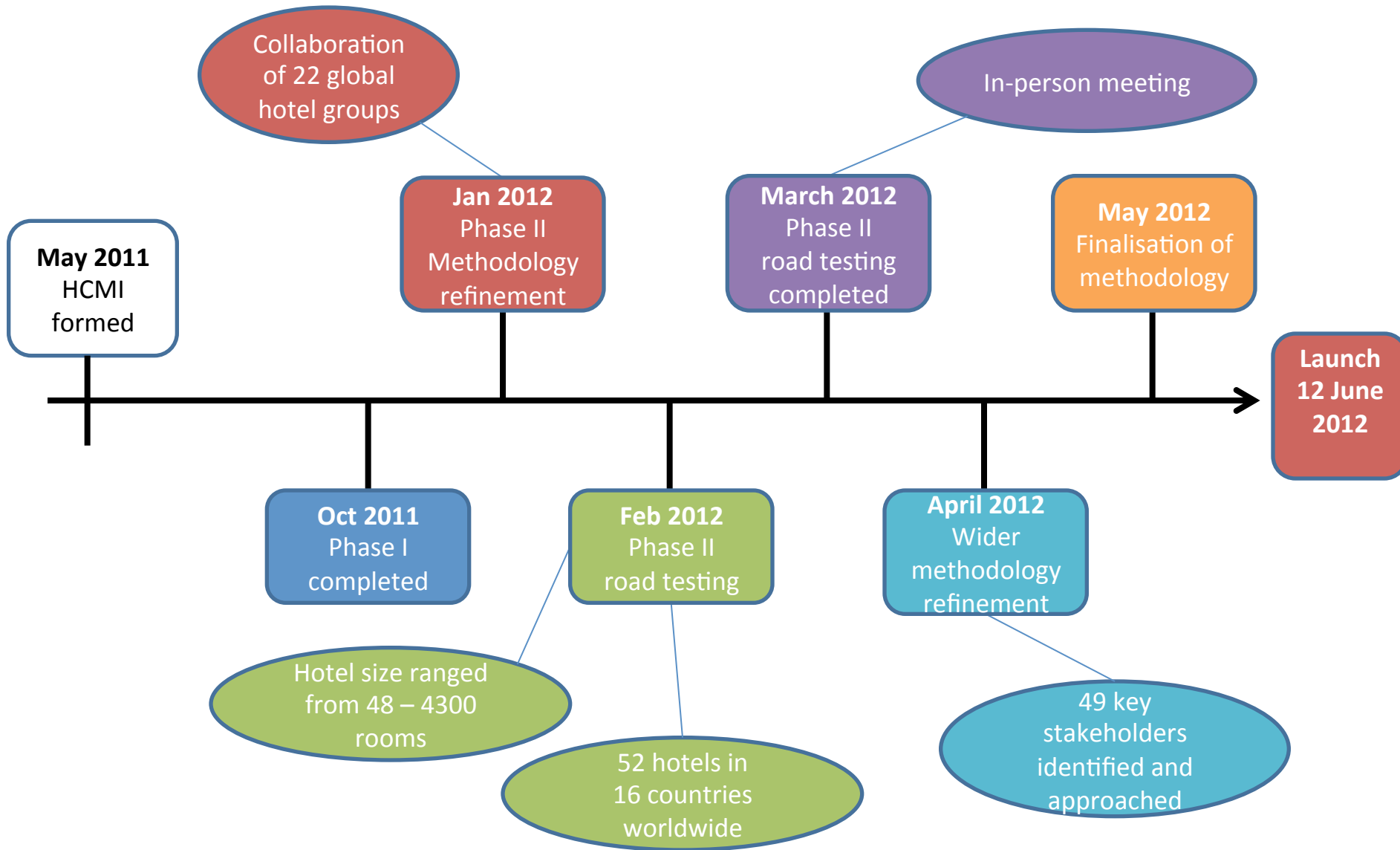
# How does it work?

- 23 competing hotel groups driving the Initiative
- Conference calls and in-person meetings
- Jointly managed by ITP and WTTC
- KPMG as technical consultants
- Input from other key stakeholders including World Resources Institute
- HCM1 1.0 Methodology launched June 2012

# PARTNERSHIP



# Progress

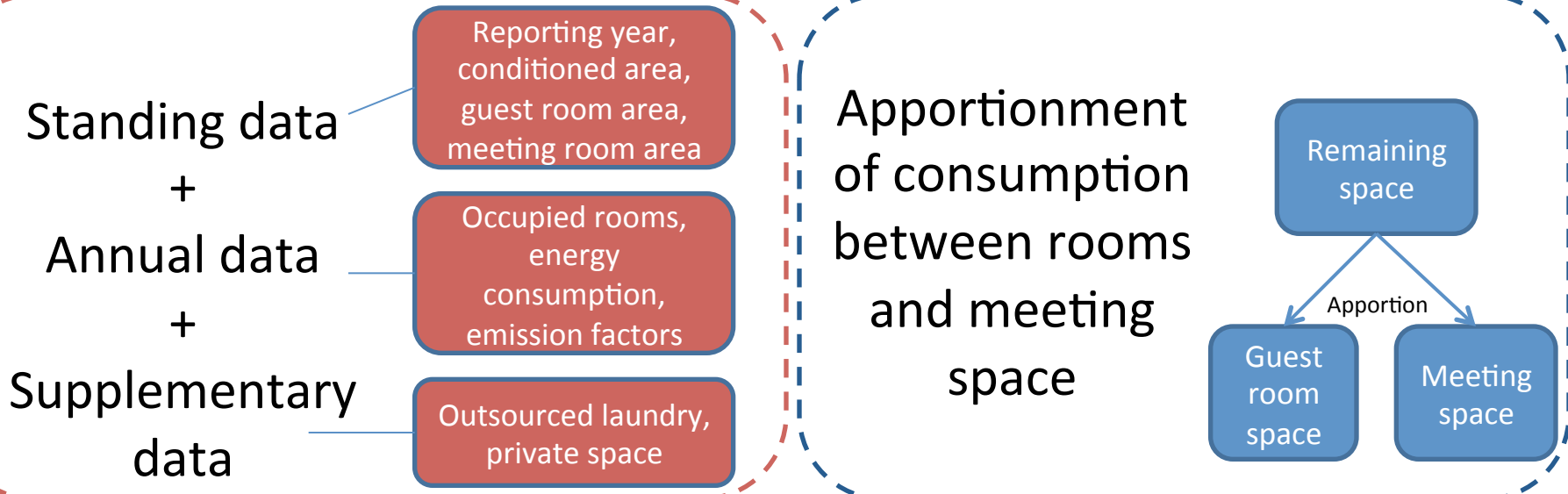




# Boundaries and Scope

- Scope 1 & 2
- Only scope 3 inclusion is outsourced laundry
- Excludes scope 1 & 2 emissions from 'private space'

# Methodology



Convert to carbon using emission factors

## Apportion footprint to clients

Total annual guest room footprint (incl. Apportioned space)

÷ reporting year occupancy

Footprint per room per night

Total annual meeting space footprint (incl. Apportioned space)

÷ 365 days ÷ 10 hours

Meeting room footprint per hour



### Profile

Hotel H is an independent, full service hotel in California with 180 guest rooms.

Hotel H would like to calculate its footprint for calendar year 2011. Management has until 30th June 2012 to gather the required information and complete the calculations.



### Hotel characteristics (See Screen shot 1 below)

*Conditioned area (i.e. area that is heated or cooled):*

- A basement where the back of house functions are located (360 sqm).
- A lobby, restaurant and bar on the Ground floor (1,000 sqm).
- Meeting space only on the 2nd floor (1,360 sqm).
- 8 floors with guest rooms and corridors only (510 sqm each; 4,080 sqm total).
- Private apartments occupy the top two floors (600 sqm each).

The total conditioned area of the hotel is: 6,800 sqm, and the total area of the private space is 1,200 sqm (17.6% of total building area).

*Unconditioned area:*

- An outdoor swimming pool and outdoor area (500 sqm).



### Occupancy: (Screen shot 1)

Sales records indicate that during 2011, 50,300 room nights were sold. 500 rooms were no-shows and 200 rooms were complimentary.

The total number occupied rooms were: 50,000.



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General

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A B C D E F G H I J K L M N O P Q R S T U V W X



**Key**

To be completed by hotel
No action
* See definitions tab for guidance or refer to comments

1	Name	John Smith
2	Job title	Hotel Manager

3	Reporting year ending*	31-Dec-11
4	Name of Hotel	Hotel H
5	Name of hotel group	N/A
6	Address	
	Country	USA
		Please select unit in drop down boxes below

8	Total area of guest rooms and corridors	4,080	Square meters
9	Total area of meeting facility space	1,360	Square meters
10	Total number of guest rooms	180	

11	Total number of occupied rooms* for reporting year	50,000	
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**Results**

<b>Total CO2e for reporting period</b>		
<b>1,611 tCO2e</b>		
Total Guestrooms Carbon Footprint	1,208	tCO2e
Total Meetings Carbon Footprint	403	tCO2e
Carbon footprint per occupied room on a daily basis	24.2	kgCO2e
Carbon footprint per area of meeting space on an hourly basis	110.3	kgCO2e

**CO2 emissions for a specific client:**

Number of room nights for client	75	
Amount of meeting space occupied by client	100	Square meters
Duration of client's meetings	10	Hours
Client's rooms carbon footprint	1,812	kgCO2e
Client's conference carbon footprint	81	kgCO2e
<b>Total client's carbon footprint</b>	<b>1,893</b>	<b>kgCO2e</b>

**Energy Consumption**

	Total Consumption	Private space consumption (Tab A- if applicable)	Outsourced Laundry (Tab B- if applicable)	Total
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Total Electricity consumption for reporting period*	2,540,802	448,377	62,460	2,154,885
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Total Gas consumption for reporting period*	4,207,102	742,430	541,320	4,005,992
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Unit	CO2e emission factor (source: <a href="http://www.ghgprotocol.org/calculation-tools/all-tools">http://www.ghgprotocol.org/calculation-tools/all-tools</a> )	Emissions (kg CO2e)
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kWh	0.3101	668,149
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kWh	0.2025	811,283
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litres	2.9556	115,441
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Normal Bad Good Neutral Calculation

### Energy Consumption

	Total Consumption	Private space consumption (Tab A- if applicable)	Outsourced Laundry (Tab B- if applicable)	Total	Unit	CO2e emission factor (source: <a href="http://www.ghgprotocol.org/calculation-tools/all-tools">http://www.ghgprotocol.org/calculation-tools/all-tools</a> )	Emissions (kg CO2e)
Total Electricity consumption for reporting period*	2,540,802	448,377	62,460	2,154,885	kWh	0.3101	668,149
Total Gas consumption for reporting period*	4,207,102	742,430	541,320	4,005,992	kWh	0.2025	811,283
Total Oil consumption for reporting period*	657	116	38,517	39,058	litres	2.9556	115,441

Please list below any other fuels (e.g. district heating, diesel, propane, LPG, etc.) and other commodities (e.g. chilled water)

	Consumption	Private space consumption (Tab A- if applicable)	Other energy sources from outsourced laundry	Total	Unit	CO2e emission factor (source: <a href="http://www.ghgprotocol.org/calculation-tools/all-tools">http://www.ghgprotocol.org/calculation-tools/all-tools</a> )	Emissions (kg CO2e)
		-		-			0
		-		-			0
		-		-			0
		-		-			0

[Click here to convert your existing consumption data to a different unit](#)

### Supplementary questions

A	Do you have any facilities that guests can't use (private space)? e.g. Timeshares, flats, private club	Yes	Continue to Tab A
B	Is your laundry outsourced?	Yes	Continue to Tab B
C	Have you Air Conditioning or refrigeration units had a major refrigerants leak?	No	No need to report on emissions from refrigerants
D	Do you use mobile fuels such as gas oil and diesel (other than for heating purposes)? (if you use such fuels for heating or electricity generation purposes, the consumption should be entered in rows 29-32)	Yes	A 1% uplift will be added to your total emissions

*If your answer is NO for all the supplementary questions, your carbon footprint is calculated automatically on the right of the screen.*

# Challenges – internal

- Replacing existing systems
- Different hotel types e.g. Casinos, restaurants, private space...
- Laundry
- Conditioned vs unconditioned area, waste water treatment...?

# Challenges - external

- Boundaries
- Metrics
- Rigour vs. Practicality
- League tables?

So how do you get from this....





.... to this?



- Need to understand where companies find competitive advantage
- Some issues are not competitive issues
- Listen to, respect and respond to individual concerns
- The greater good can often outweigh the individual concern

# 6 lessons we have learned along the way

1. It's hard work! And it takes time.
2. Keep focused on the bigger goal.
3. It helps if it is customer-led.
4. Everyone in the group needs a stake.
5. Use the centrifugal force.
6. Make it fun.

# And we are far from done!

- We have only just begun
- HCMI 1.0 is the first iteration
- We will be integrating new research and relevant work when available

# Next steps for HCMI...

- Roll out the methodology with members' hotels
- Encourage the use of the methodology with other hotel groups
- Work to achieve recognition of this voluntary code with relevant stakeholders e.g. meeting planners, corporate customers, certification schemes
- Review the methodology in spring 2013

Thank you!

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[www.tourismpartnership.org](http://www.tourismpartnership.org)

[www.wttc.org](http://www.wttc.org)