

# Emissions based parking policies

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ACT Travelwise Webinar  
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## Overview

- Benefits of emissions charging
- Scheme and permit design
- Effective communication
- Using technology to manage and enforce
- Summary

## Ask the audience

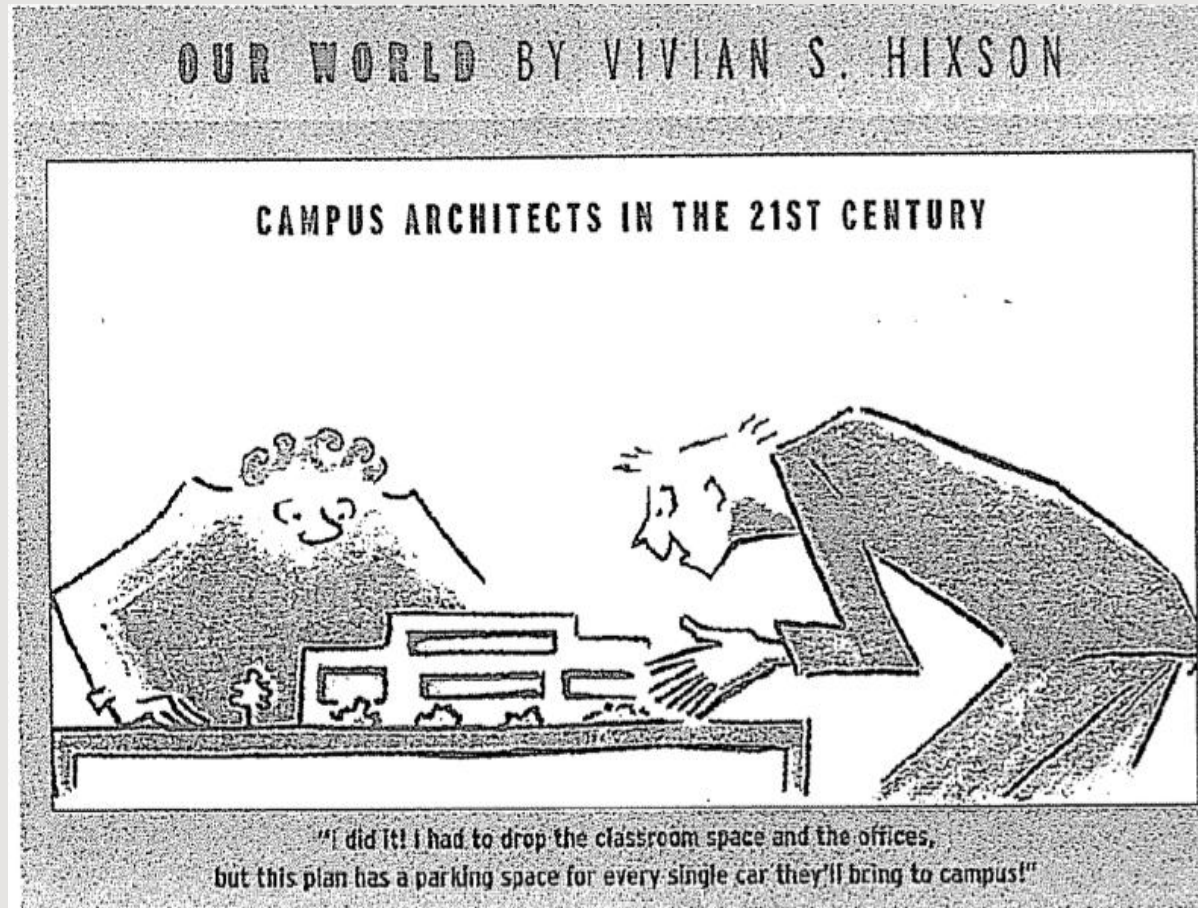
Which of the following parking pricing options do YOU think has the greatest potential for encouraging more sustainable travel?

1. Salary based
2. Vehicle emissions
3. Daily charge
4. Fixed annual fee
5. Zonal

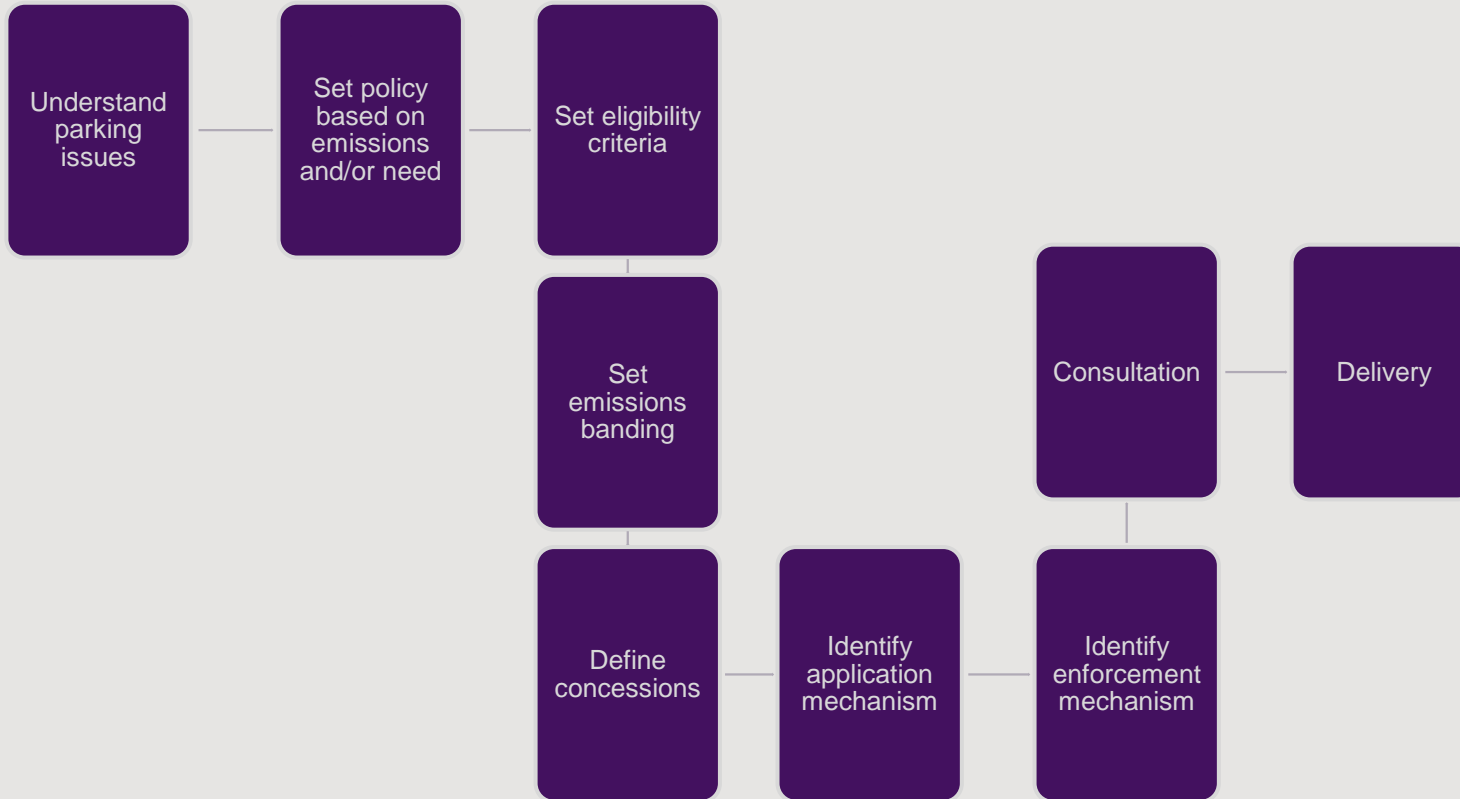
## Benefits

- Reduce Scope 3 emissions
- Meet travel plan conditions
- Ability to pay as you park as a user
- Reinvestment into the travel plan
- Reduce subsidy inequality between car and non-car users
- Reduce reputational risk with neighbours

## Maximising valuable land space...



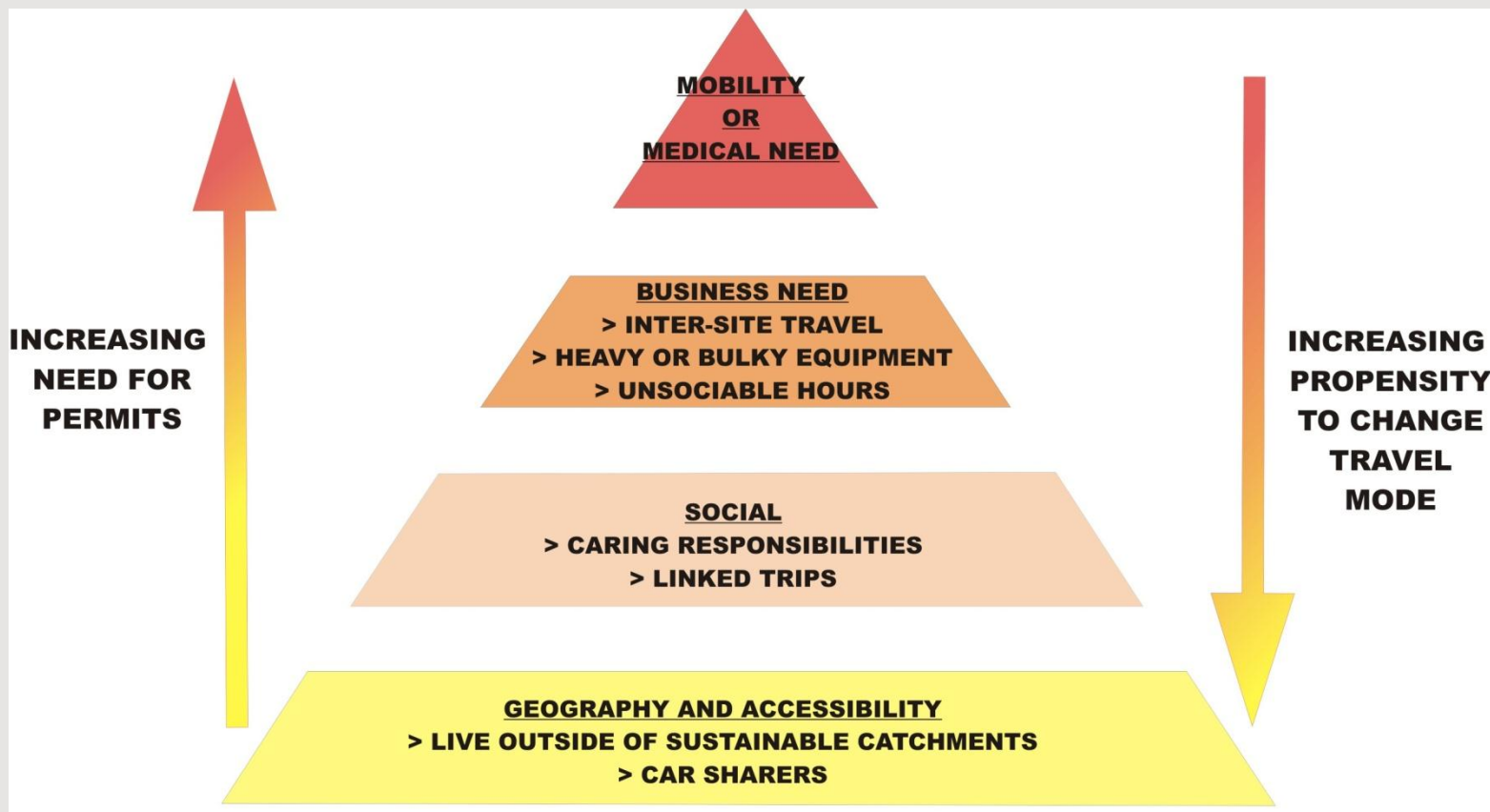
## Scheme and permit design - overview



## Scheme and permit design – key questions

- Emissions based charge only?
  - link to parking need
  - could also have salary weighting
- Equitable policy for staff and students?
- Lower paid and part-time staff
- What to do about car sharers and motorcycles
- Occasional user permits – make sure a quota is set

## Allocating by need





## Graduated charges

	DVLA tax band	CO <sub>2</sub> Emissions	Pay Grade 1-3	Pay Grade 4-6	Pay Grade 7-8	Pay Grade 9+
Lower Band 1	A-C	Less than 120 g/km	£20	£24	£30	£36
Standard Band 2	D-F	121-150 g/km (up to 1,549cc)	£40	£48	£60	£72
Higher Band 3	G-K	151-225 g/km (1,549-2,000cc)	£60	£72	£90	£108
Top Band 4	L-M	More than 225 g/km (over 2,000cc)	£80	£96	£120	£144

University of Leicester, 2011

## Emissions issues – things to think about?

- How far do you go for cars that emit  $<100\text{gCO}_2/\text{km}$ ?
- Do you use an automated DVLA look up?
- What do you do for cars registered before 2001?
- How many cars do you allow per applicant?
- Does the policy apply 24 hours?

## Effective communication

- Emissions based charging may make good financial sense and encourage mode shift BUT winning hearts and minds is the key
- Policies may be challenged on a variety of grounds:
  - Equality
  - Safety
  - Recruitment and retention
- Need strong business case and to ensure senior managers are on side

## Dealing with the common arguments

Perception	Reality
Another tax on staff	Parking costs are usually heavily subsidised, meaning all users are paying, not just car users
Emissions charging targets the poorer paid staff	Conversely, research shows that poorer paid staff do not actually have higher emissions for their vehicles and are less likely to drive
Staff will leave	Good luck! Everyone else is already changing their policies
There is an increased safety risk to vulnerable staff	Parking revenue can help to make car parks safer
Why is money being made from staff?	We are only reducing the losses associated with parking. If we do not recoup parking costs, salaries and jobs will be affected.

## Using technology to manage and enforce

- Emissions based charging lends itself to fully automated online permit application software

The screenshot shows the ParkIT web application interface. The header includes the ParkIT logo and navigation tabs for Home, Registration and Permits, User Data, and Help. The main content area is titled 'Assessment Criteria' and contains a list of questions for users to answer. The questions are grouped into three categories: Category A (Highest Priority Category), Category B, and Category C. Each question has 'Yes' and 'No' radio button options. The interface also features a sidebar with logos for North Bristol NHS Trust, Travel & Parking, sustrans, transport direct.info, and walkit.com. At the bottom right, there is a 'Sign out' button and the user's name, James Goldman. The footer indicates the application was registered on 17/Jan/2011 at 16:12:02.

**ParkIT.**  
Manage, Control & Monitor

Home   Registration and Permits   User Data   Help

### Assessment Criteria

Please answer all of the questions below.

Please answer all of the following questions either YES or NO

**CATEGORY A (Highest Priority Category)**

- 1 Are you registered disabled? If so then you will be granted a free permit and access to park in a designated disabled parking space. Yes  No
- 2 Do you have a medical condition that requires you to park close to your place of work? - This MUST be validated via Occupational Health. (you will need to be referred to occupational health by your manager if they support your application. Receipt of confirmation at the parking office is required before a permit will be issued) Yes  No

**CATEGORY B**

- 3 Are you on-call between 6pm and 8am Monday to Friday or at weekends and therefore require a permit to park at these times at the hospital? Yes  No
- 4 Do you work at North Bristol NHS Trust as a volunteer? Yes  No
- 5 Do you work at North Bristol NHS Trust as 'Community Staff'? Yes  No
- 6 Are you resident at Frenchay or Southmead sites and therefore require a permit to park in the residents car park on site? Yes  No
- 7 Do you work for Avon and Wiltshire Mental Health Partnership? Yes  No

**CATEGORY C**

- 8 Do you have to leave and re-enter the site with heavy or bulky items on NHS trust business at least four times a week? Yes  No
- 9 Are you required to travel (minimum 4 times a week) off site in the course of NHS Trust business (not site to site)? Yes  No

North Bristol NHS Trust  
**Travel & Parking**

sustrans  
JOIN THE MOVEMENT

transport direct.info

walkit.com  
THE URBAN WALKING ROUTE PLANNER

Sign out James Goldman

Registered on 17/Jan/2011 16:12:02

# Online permit applications

Enter your car registration here and the system will enter the car details from the DVLA database - you may enter up to 3 cars if you wish, you will only need to pay for one permit which is transferrable between your registered cars. [Note that the fuel types offered are the standard DVLA classifications; e.g. diesel is referred to as 'Heavy Oil']

**Vehicle #1** [Delete](#)

Registration Plate:   Vehicle Make:

Vehicle Model:  Vehicle Colour:

Engine Size (cc):  Fuel Type:

CO2 Emissions (g/km):

Auto link with DVLA database

Ability to bulk allocate permits

**ParkIT**  
Manage, Control & Monitor

System | Key Settings | User Data | **Permit Data** | Other Permit Tools | Statistics


**Provisional Permit Allocation** Total records: 68

Total spaces:   Car Driver Permits Filter by Car Park:    
 Remaining spaces:   Other Permits Filter by Applicant:

Applicant	Notes	Type	App Date	Start	Score	Car Park	App Ref	Txt	A	B	C	Zn	£	Action	Reason
<a href="#">Abdalla Elgahmi</a>	<a href="#">View</a>	Regular Permit	28/02/2011	01/04/2011	1525	Southmead	3135	No					3	Allocate	
<a href="#">Susannah Johnson</a>	<a href="#">View</a>	Regular Permit	28/02/2011	01/04/2011	1500	Southmead	2169	No					2	Prov. Allocate (doc: Available spaces for Frenchay: 204/420)	
<a href="#">Dawn Minchin</a>	<a href="#">View</a>	Regular Permit	28/02/2011	01/04/2011	1500	Frenchay	2205	No					2	Allocate	
<a href="#">MARY CARRADINE</a>	<a href="#">View</a>	Regular Permit	28/02/2011	01/04/2011	1500	Southmead	949	No					2	Reject	

James Goldman

# Printing permits



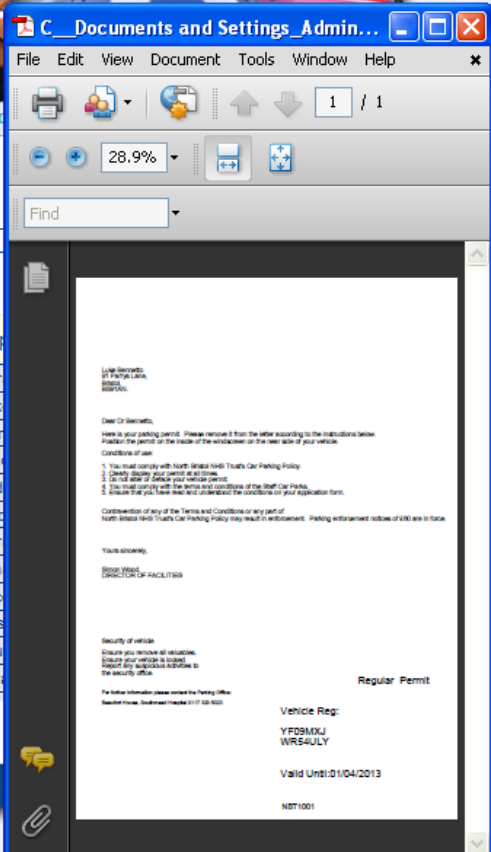
**System** | **Key Settings** | **User Data** | **Permit Data**

**Permits**

User System Details  
Login As Different User

Name/Number/Vehicle:  Car Park:   
 Permit Type:  Custom Filter:

Permit Number	Application Type	Days	Issued Date	Start Date	Expiry Date	Vehicle Reg	Other Vehicle Reg	App. Ref	App
1000	Regular Permit	n/a	09/03/2011	01/04/2011	01/04/2013	EA58VUC	WM05ECX	1699	Sar
1001	Regular Permit	n/a	09/03/2011	01/04/2011	01/04/2013	YF09MXJ	WR54JULY	4321	Luk
1002	Regular Permit	n/a	09/03/2011	01/04/2011	01/04/2013	WP570GR	null	2461	Anr
1003	Regular Permit	n/a	09/03/2011	01/04/2011	01/04/2013	WU58UOP	null	2495	Tra
1004	Regular Permit	n/a	09/03/2011	01/04/2011	01/04/2013	WU57WNL	WV58WUL	1918	Lad
1005	Regular Permit	n/a	09/03/2011	01/04/2011	01/04/2013	FM52EZW	KL07CUV	3864	And
1006	Regular Permit	n/a	09/03/2011	01/04/2011	01/04/2013	X811DDV	KT540TVW	2258	Sar
1007	Regular Permit	n/a	09/03/2011	01/04/2011	01/04/2013	WL05HLA	null	4754	Joh
1008	Regular Permit	n/a	09/03/2011	01/04/2011	01/04/2013	YD09XGW	null	4450	Jac
1009	Regular Permit	n/a	09/03/2011	01/10/2011	01/10/2013	CP03GKV	YA55RZE	3318	Sus
1010	Regular Permit	n/a	09/03/2011	01/04/2011	01/04/2013	WM59JXF	null	3705	Lau
1011	Regular Permit	n/a	09/03/2011	01/04/2011	01/04/2013	N879VCY	Y857KAX	875	Eliz



**Regular Permit**

Vehicle Reg:  
YF09MXJ  
WR54JULY

Valid Until: 01/04/2013

NET1001

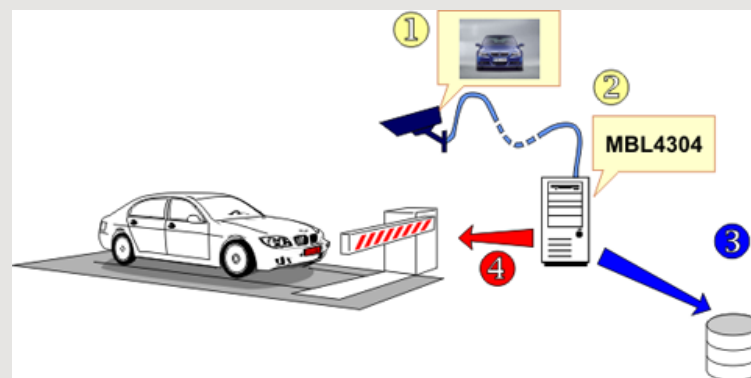
## Enforcement options

- Clamping and removals being phased out
- This leaves
  - Patrols
  - Barriers
  - ANPR
- Focus on new technology



## What is ANPR?

- Automatic Number Plate Recognition
- Digital CCTV operating system to identify and log vehicle number plates
- Output depends on complexity of support software
- Main uses include:
  - 1) Controlling entry/exit to sites
  - 2) Parking enforcement
  - 3) Police uses



## Pros and cons

Benefits	Disadvantages
Good reporting of peak flows	Set up costs can be high
Can be used with permit management database to estimate commuting emissions	Still need on site enforcement
Effective deterrent of parking abuse	Prone to vandalism
Real-time information	Read errors
Improves security	

## Summary

- Emissions based charging can make a real difference to commuting emissions, especially by allowing the ability to 'pay as you park'
- Need to factor in other factors such as salary and the needs of the user
- More thought needed on the management of permits, application process and enforcement approach
- Reinvestment into the travel plan, wayfinding and the overall parking experience should be clearly visible
- Policy needs to be reviewed at least every two years to account for improved vehicle efficiency

## Contact details and questions

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