

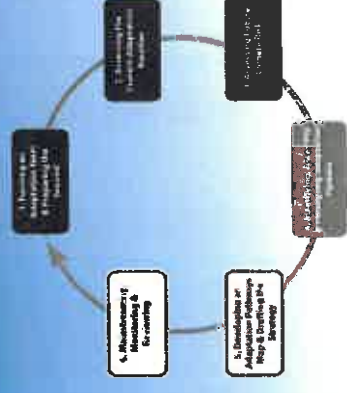
# **Local Authority Climate Change Adaptation Guidelines (draft)**

**Climate Change Adaptation in Action: Science, Policy  
and Practice Seminar**

Dr. Margaret Desmond, EPA Climate Research

November 4th - DECLG, Custom House, Dublin

## Rationale for development of guidelines



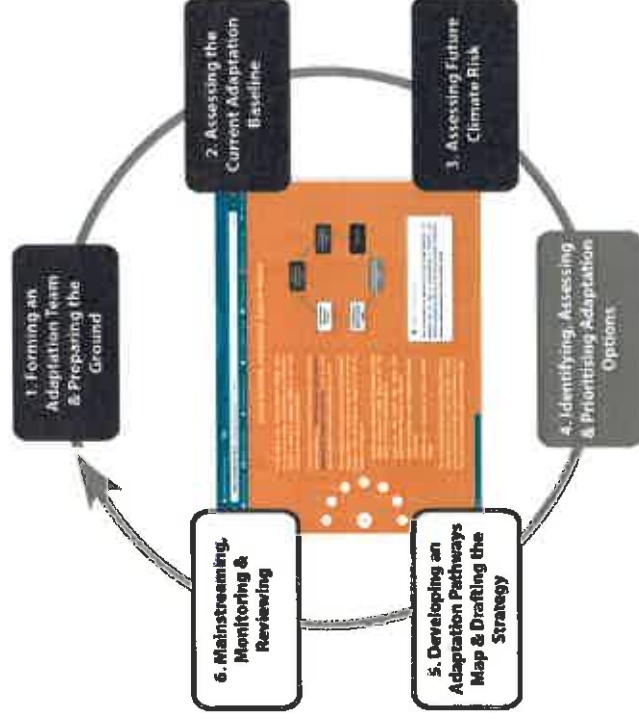
- National Climate Change Adaptation Framework
  - Mandated inclusion climate change in development plans and SEA
- EPA funded Adaptation Fellowship (2013)
  - Design approach for the integration of climate change adaptation within LA planning
  - Two-year period of LA consultation, development workshops and a pilot programme,
- Key outputs: guidelines for integrating climate adaptation in to spatial planning

## Adaptation in the local authority planning process

- Guidelines development: best practice in early mover MS and EU Adaptation Strategy (2013) guidelines
- **Approach : A Separate stand alone adaptation Strategy is required**
- The Strategy, once approved, should then be used by a local authority to assess the adaptation fitness of their spatial plans and other plans and policies under their remit.
- This will fulfil and build on the mandate provided to local authorities under the NCCAF and the forthcoming Climate Bill

# Climate Ireland

- One-stop web-based resource of climatic and adaptation information



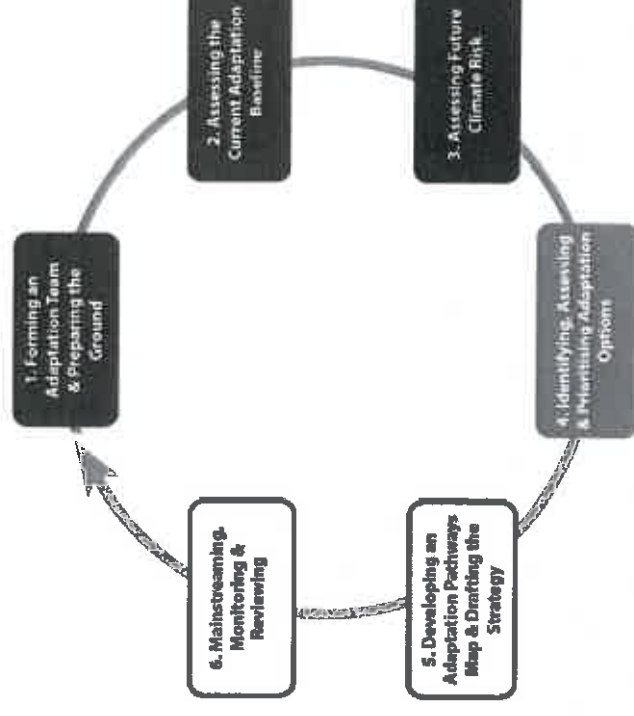
- Providing information, tools and frameworks to facilitate users through the adaptation planning cycle:
  - Awareness Raising
  - Information Provision
  - Decision Support

# Walk-through: The Local Authority Adaptation Process



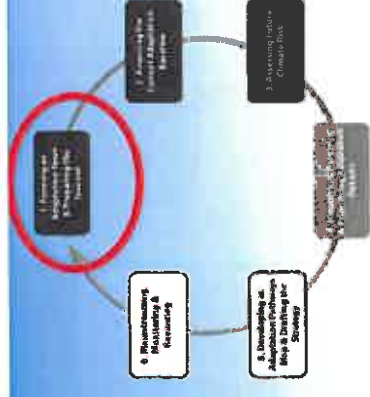
## **A 6 Step Approach:**

- 1. Forming an Adaptation Team & Preparing the Ground**
- 2. Assessing the Current Adaptation Baseline**
- 3. Assessing Future Climate Risk**
- 4. Identify, Assess & Prioritise Adaptation Options**
- 5. Developing an Adaptation Pathways Map & Drafting the Strategy**
- 6. Mainstreaming, monitoring and Reviewing the Strategy**





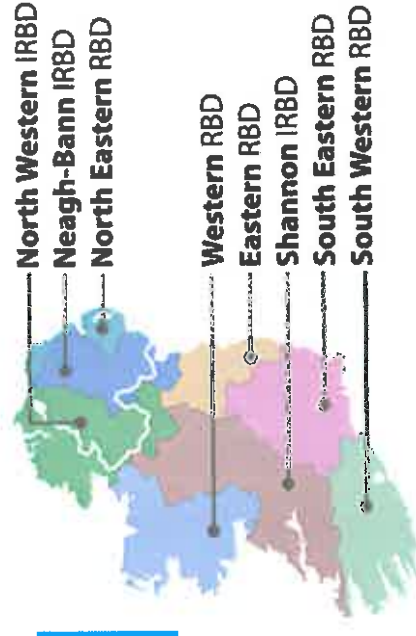
# 1. Forming an Adaptation Team & Preparing the Ground



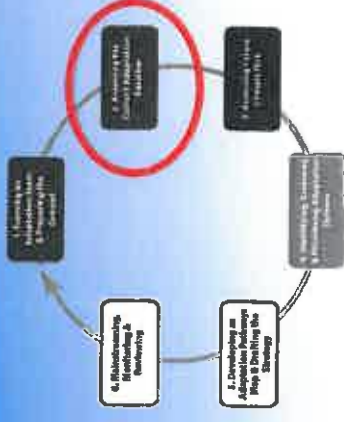
- Adaptation is a crosscutting issues that requires an integrated and explicitly collaborative approach (internal & regional).

- Form your Adaptation Team
- Plan Stakeholder Engagement
- Plan Regional and Sectoral Collaboration

Internal Departments, knowledge domains and disciplines to consider for inclusion in the core adaptation team	Biodiversity Building control Coastal management/recreation Environment Economic development Finance Heritage Housing Information systems/GIS Planning/planning policy Roads/transport Water services
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## 2. Assessing the Current Adaptation Baseline



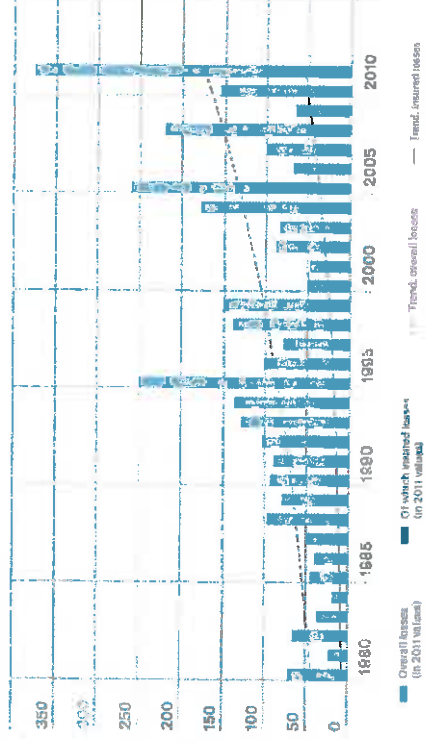
- Understand average climate for your area;
- Assess how climatic trends and current weather events have impacted upon your area and the consequences of these for service delivery;
- Audit policies and measures currently being enacted.



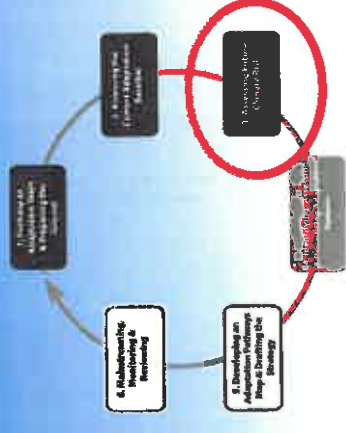
### Sustainable Drainage Systems (SUDS)



Overall losses and insured losses 1980-2011 (US\$ bn)



### 3. Assessing Future Climate Risk



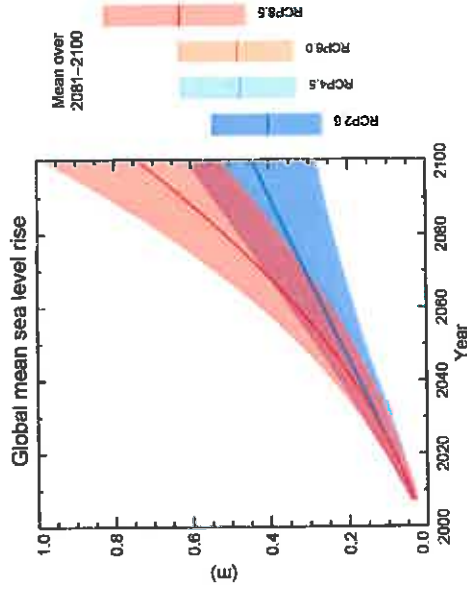
- Assess the evolution of future climate risk through time

- Starting with Current Risks

- Assess how these might change in the future,
- the impacts of these for your authority

- Scoping Potential Future Risks

- E.g. Increasing Temperatures

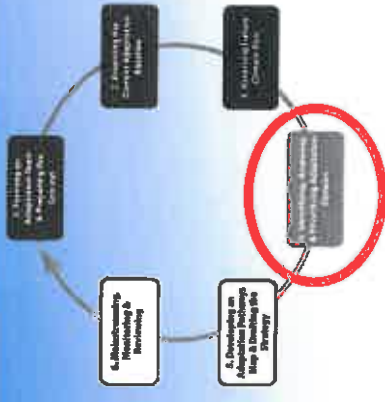


Important that this assessment is done in relation to LA objectives and targets,

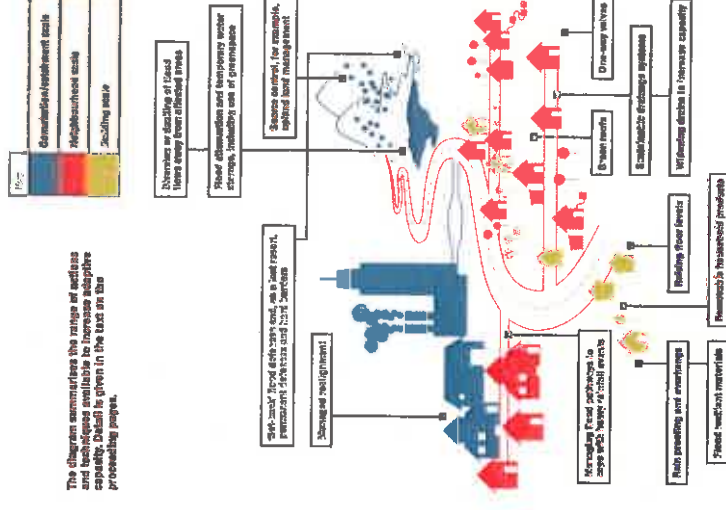


## 4. Identify, Assess and Prioritise Adaptation Options

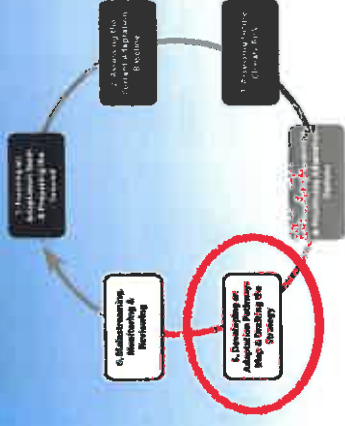
- Existing measures will form a starting point;
- A wide variety of adaptation options are available to decision makers
  - Grey – Engineering Solutions
  - Green – Nature-based Solutions
  - Blue – Governance
- Identification, assessment and prioritisation will be based on:
  - Urgency of Action
  - Flexibility
  - Win-win status
  - Level of regret



### menu of strategies for managing flood risks



# 5. Developing and Adapting the Pathway Map & Drafting the Strategy



- Adaptation pathways provide a simple graphic illustration of the trade-offs between adaptation choices;
- Adaptation pathways provide a useful framework to detail a range of options once an adaptation measure fails to meet its objective
- The Strategy offers contextual information on a preferred pathway route.

### Issue

### Roads

### Key decision

How will bitumen and unsealed roads respond to an increasing frequency of extreme events (e.g. hot weather and higher intensity storm events)

### No changes

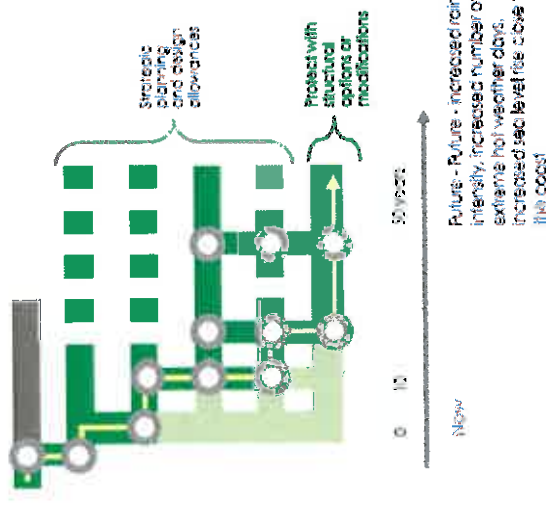
Strategic transport plan considering future transport modes and demands

Identify points of vulnerability in network e.g. roads database

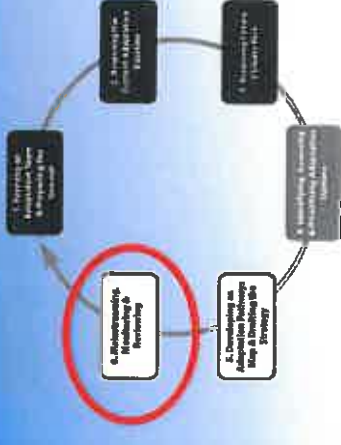
Makes design allowance for increase in extreme events

Research and development on improved techniques/materials

More frequent bitumen resealing due to temperature induced oxidation



## 6. Mainstreaming, Monitoring and Reviewing the Adaptation Strategy



- The strategy will be implemented and revisited over time through the SEA process on Local Authority Development plans
- Collaboration and engagement at local, regional and national scales will be required.
- Data collection, monitoring and review should be ongoing
  - We suggest to begin this straight away
- Forms the basis of understanding Implementation of Adaptation
  - national purposes
  - International and EU reporting also

