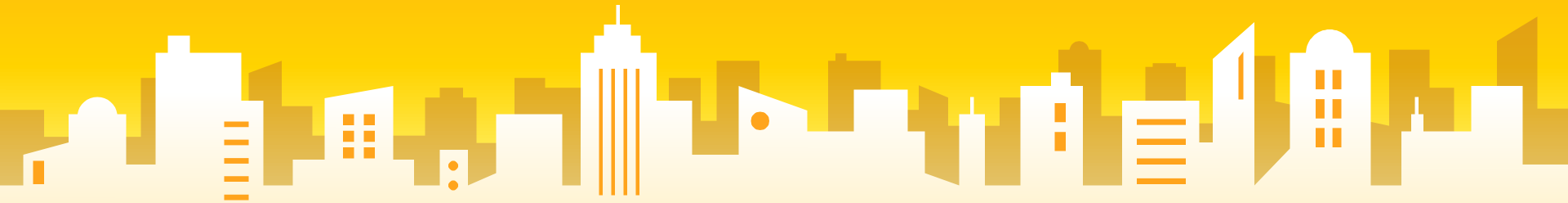


# **APPROACH & METHODOLOGY ADOPTED FOR DEVELOPING BREF FOR TEXTILE SECTOR IN GUJARAT**



# AGENDA

- Need of BAT in Gujarat, India
- German Co-operation and Role of UBA
- Stakeholders and Their Roles
- Methodology Adopted
- First Results and Current Status
- Challenges Faced

# 1. NEED OF BAT IN GUJARAT, INDIA

# GUJARAT's APPROACH FOR BREF

- Gujarat : One of the most industrialized states of India

- Comparatively Larger Industrial Estates

- Increasing Environmental Issues

- Indian Environmental Standards different from European Standards

- Hence - need of BREF customised for Gujarat

- BREF Document to be prepared in the context of Gujarat Industrial Scenario

- Textile sector - first sector for BREF in Gujarat

# CURRENT SCENARIO

India doesn't operate with a BAT concept like that of European Union

Several rules, notifications and guidelines for the control and prevention of industrial pollution exists

This includes legally binding emission standards or discharge limit values specific to each industrial sector

Industrial facilities must comply in order to obtain permission from the State Pollution Control Boards

The industry-specific emission standards or discharge limits are called Minimal National Standards (MINAS)

# MINAS

MINAS, by definition, are techno-economical norms achievable by the industry

They constitute quantitative limit values for the emission of pollutants into the environment

These include air pollutants emitted from stacks, fugitive emissions and water pollutants in wastewater

Techniques for prevention and control of chemical pollution from industries are considered as part of the development of the MINAS

# MINAS

These are Best Techno-Economically Available Techniques (BTEAT) rather than BAT

Exchange of information during the process between all stakeholders is absent and missing

No improvement of competence in the applied industrial processes in the authorities

Does not consider cross-media effect and fails to address environment as a whole

Provides end of the pipe treatment options and solutions

# WHY BREF ?

MINAS is not BAT but BTEAT

Core issues associated with environmental improvements are addressed beforehand in BREF

Identifying actions needed for enabling improved performance in the sector taken into account

Addresses issues of pollution control and mitigation and also includes resource conservation, performance efficiency etc.



# WHY BREF ?

All the key stakeholders like industrial units, experts from industries etc. are included in the process leading to successful implementation

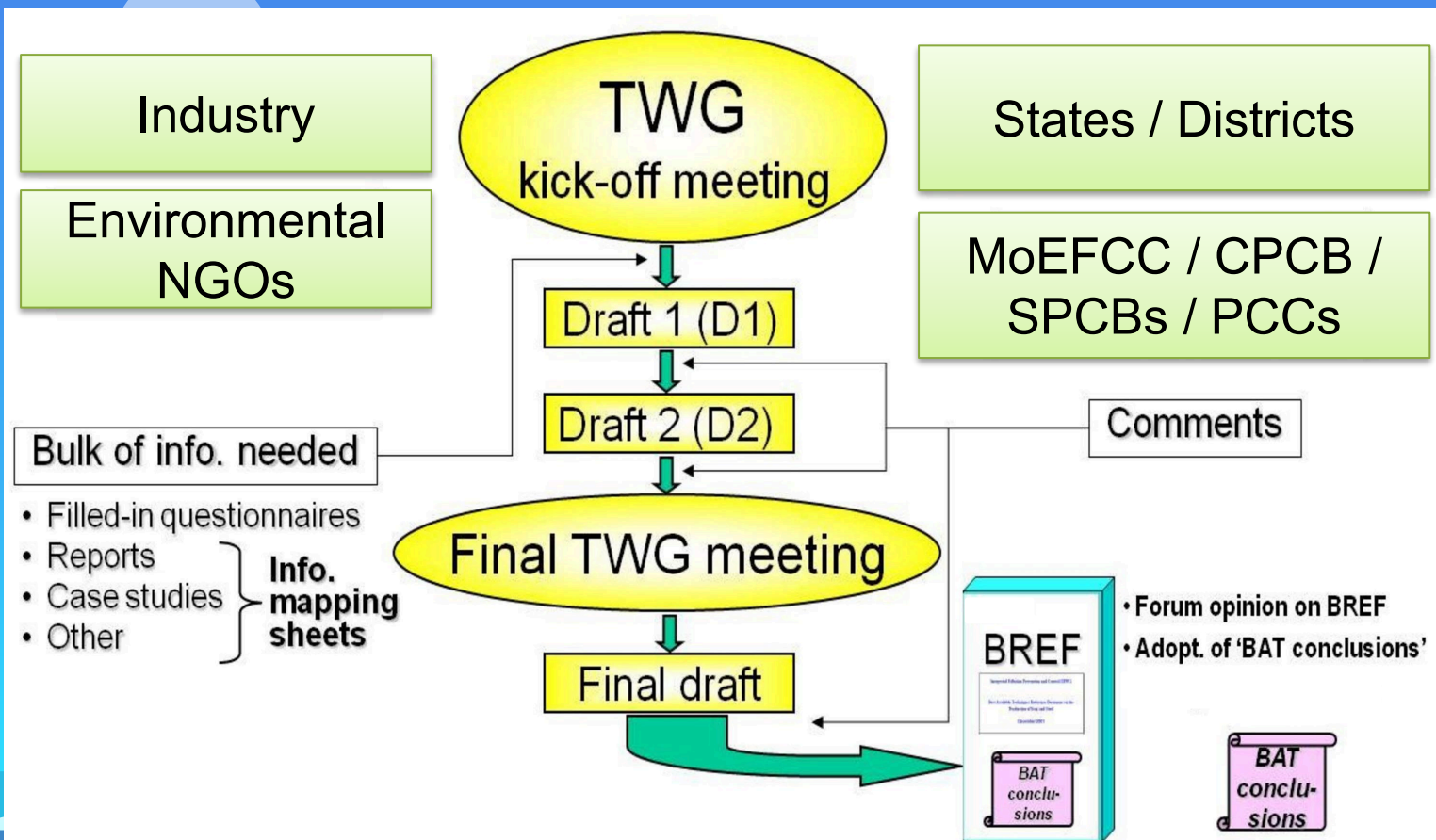
Meetings are held to draw important conclusions from the group giving a meaningful input to BREF

Sector Specific and Product Specific standards are possible using BAT

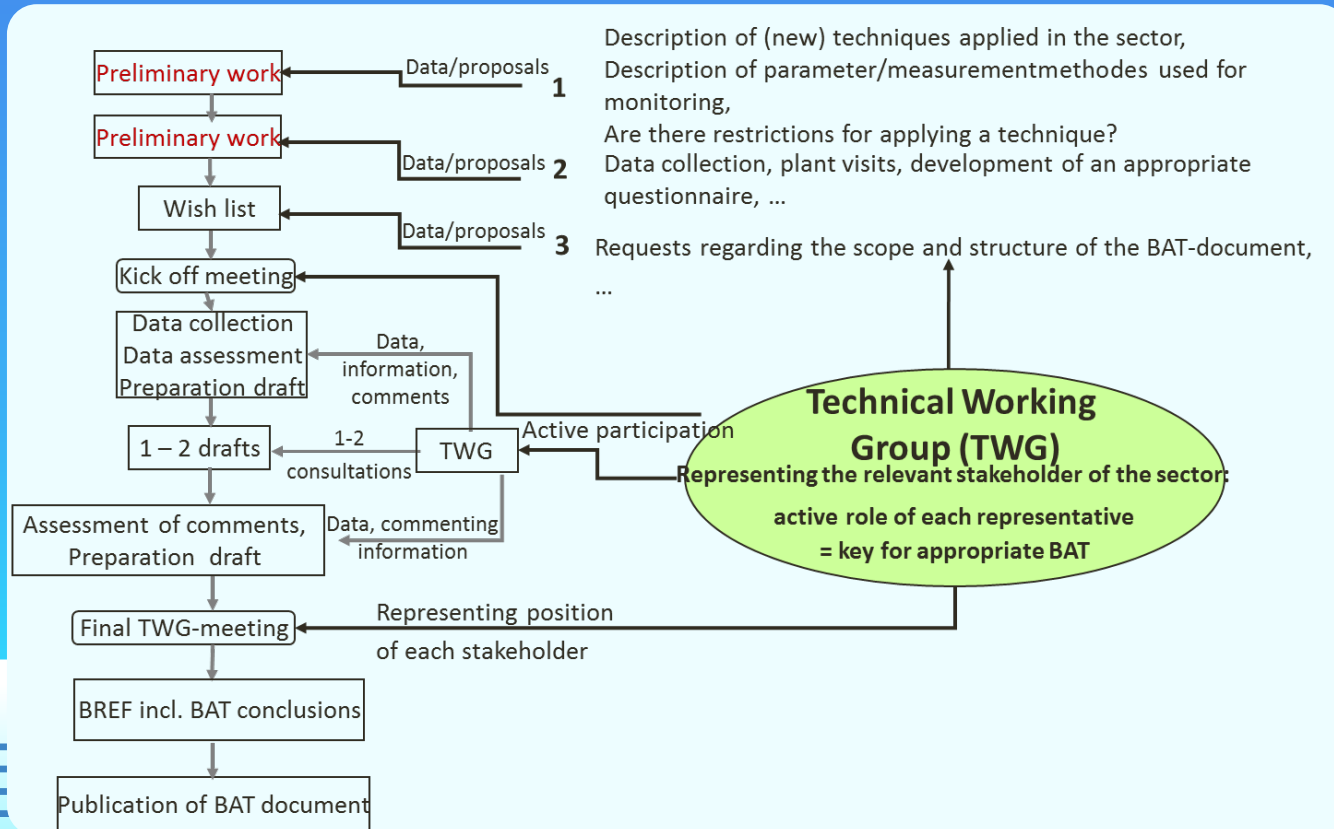
Addresses applicability issue and cross-media effects

Focusses more on process integrated prevention of pollution instead of end of pipe treatment

# BREF



# INFORMATION EXCHANGE FOR DETERMINATION OF BREF<sup>11</sup>



## 2. **GERMAN CO-OPERATION AND ROLE OF UBA**

# GERMAN CO-OPERATION

The Indo-German Environment Partnership (IGEP) initiated a BAT programme in the state of Gujarat

Result of a collaboration between Gujarat Pollution Control Board (GPCB), German Federal Environment Agency (UBA) and GIZ

Joint Declaration of Intent manifests for Promotion of Best Available Techniques (BAT) not Entailing Excessive Cost

In Vibrant Gujarat Summit - 2013, MoU and JDI were signed between GPCB, UBA and GIZ and the process was kicked off

# ROLE OF UBA

UBA is the important stakeholder in the BAT process in Gujarat



They are the subject experts guiding GPCB for BAT process



Initial hand holding for formulating of Guidance Document



Important roles in various phases of BAT Document preparation

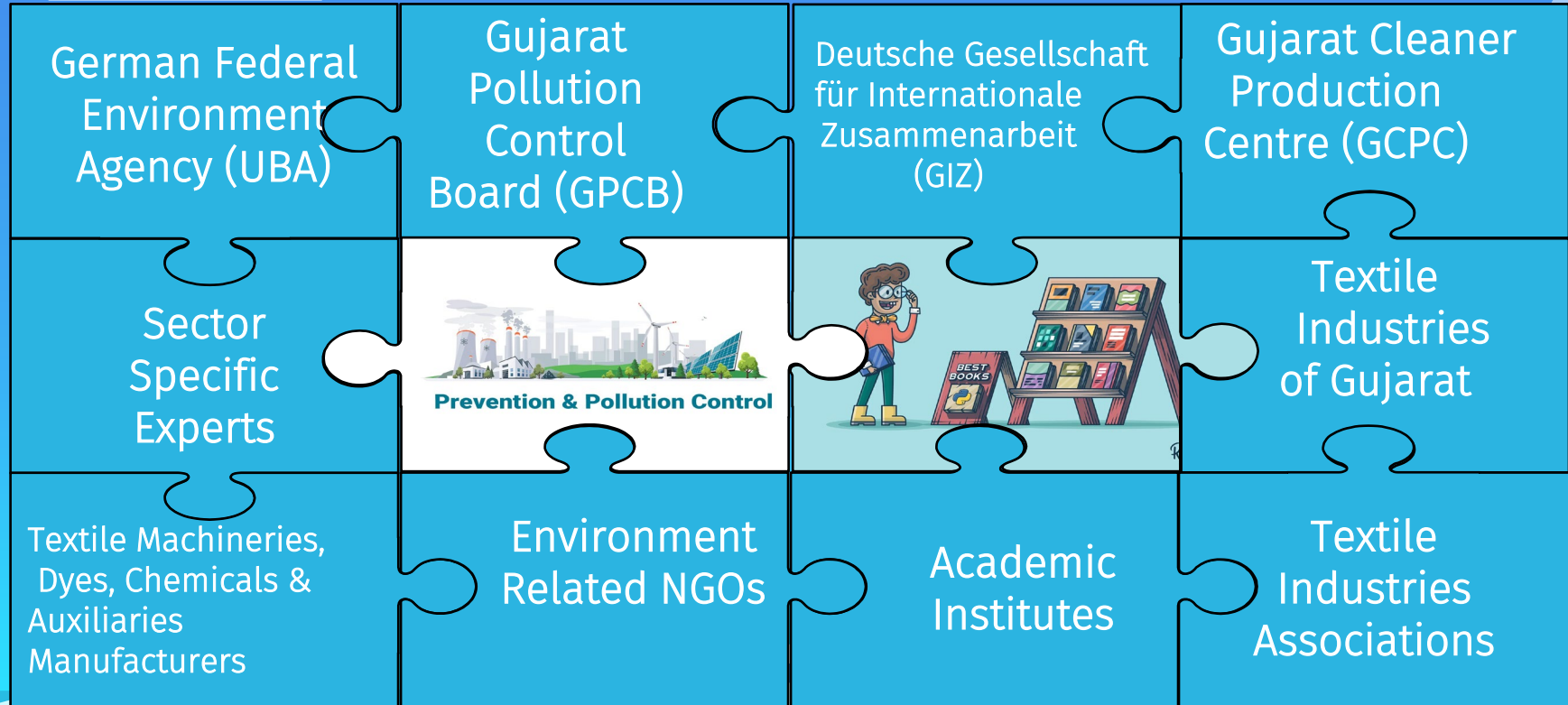


Guiding Core Team, TWG, Author etc. & steer for successful preparation of BREF

### 3.

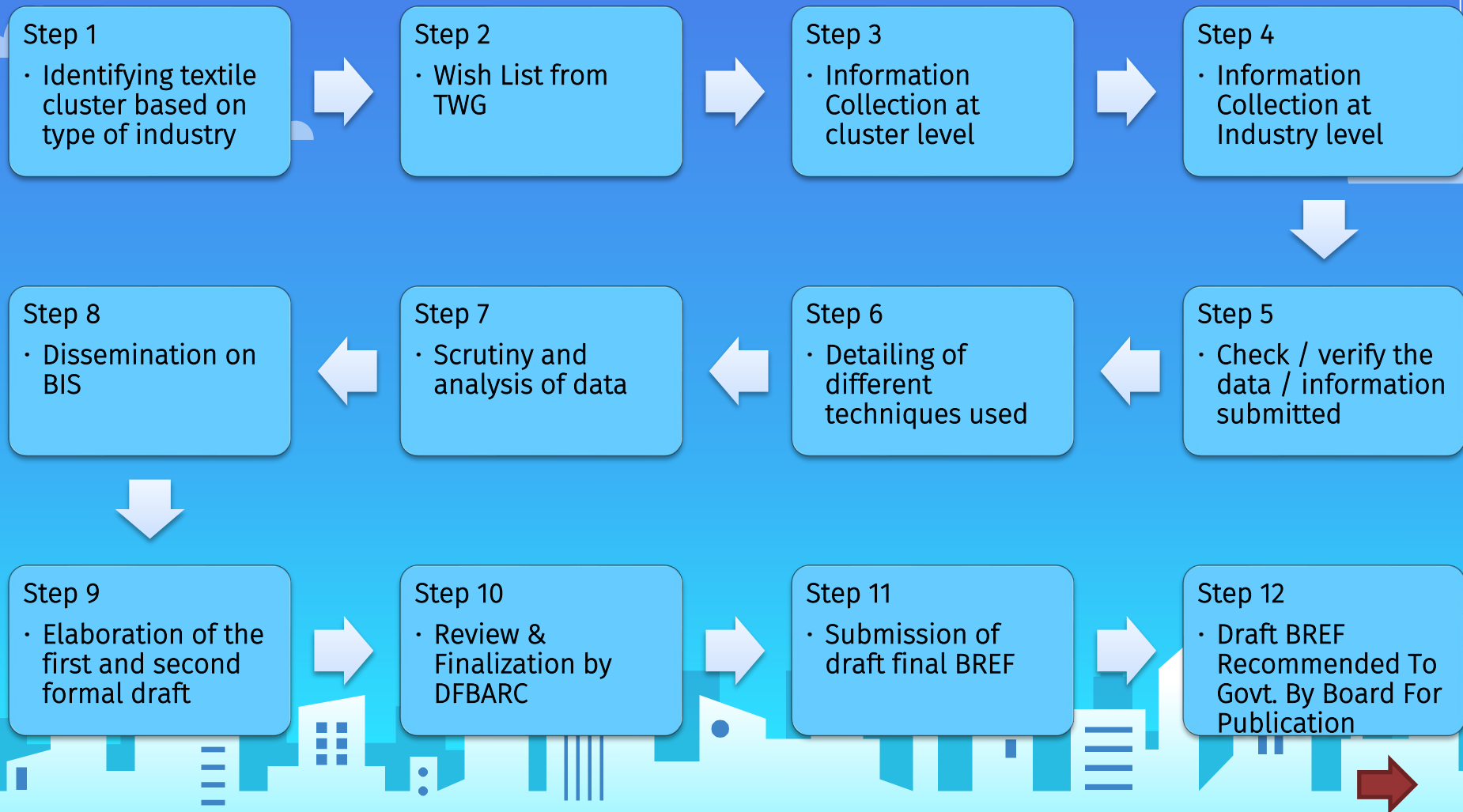
# STAKEHOLDERS AND THEIR ROLES

# ORGANIZATIONS INVOLVED





# 4. **METHODOLOGY ADOPTED**



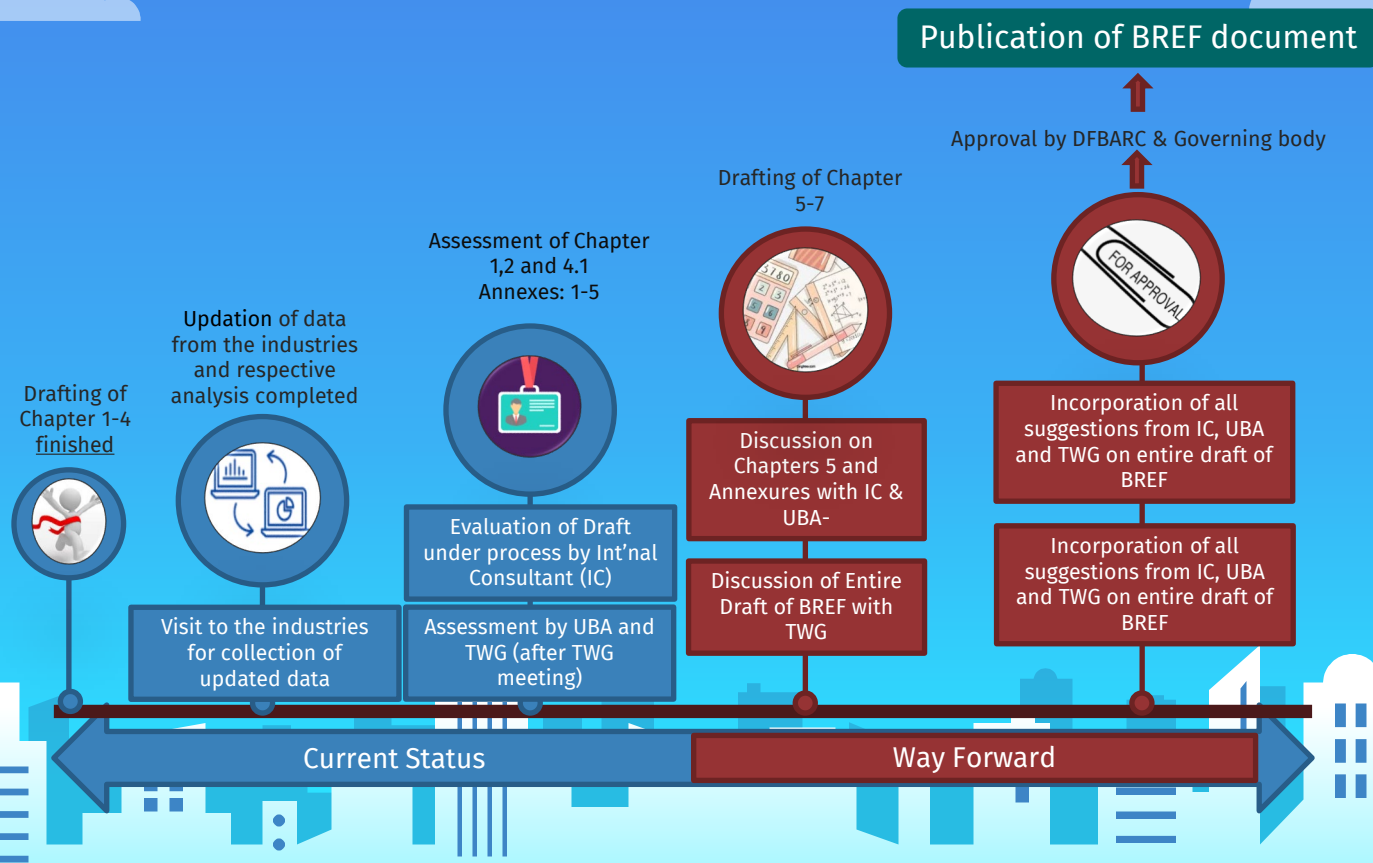


# **5. FIRST RESULTS & CURRENT STATUS**

# FIRST RESULTS

- Preparation of Guidance document for drawing up of BREF documents
- Questionnaires for data collection for BAT
- Identification of the key environmental issues for the Textile sector
- Primary identification of the best environmental performance levels, on the basis of the available data in the European Union and world-wide
- Examination of the conditions under which these performance levels were achieved
- Such as costs, cross-media effects, main driving forces involved in implementation of the techniques

# CURRENT STATUS



## 6. CHALLENGES FACED

# CHALLENGES

New Process and Procedure

New Concept - No previous precedence

Industries never involved in policy making earlier

Data Collection, its accuracy and authenticity

Lack of knowledge – could not share details

Data Compilation and addressing the data gaps

Convincing and explaining the stakeholders – first of its kind effort in India

Industries unsupportive due to novel idea and never before implemented

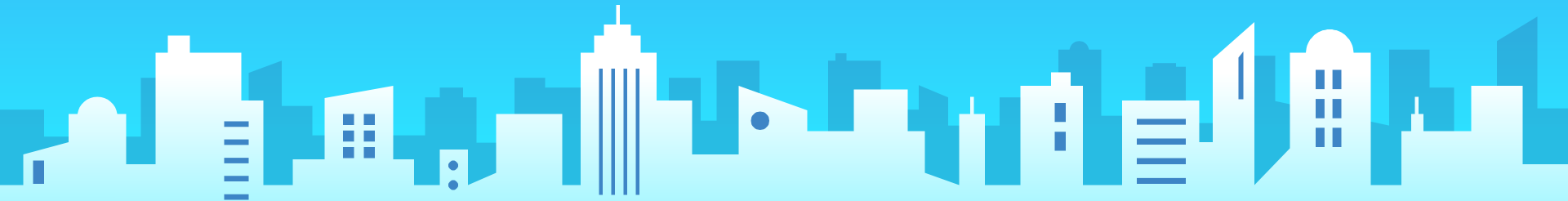


# Thanks!

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# STAKEHOLDERS AND THEIR ROLES

(Back Up)

# ROLE OF GPCB



Preparation of Guidance document for drawing up of BREF document

Selection of a competent author

Defining TOR for the author

Search for possible competent TWG Members

Support & supervision of the process

# ROLE OF GPCB



Orientation & Capacity building of TWG members and Author

Activates the TWG  
(calling for confirmation of membership and contact details)

Give feedback to State Government & take further consent from appropriate authority

Publication of the document

Implementation of BREF document in the State

# GPCB – CORE TEAM MEMBERS

Chairman

• Member Secretary, GPCB

Member

• Senior Environment Engineer, GPCB

Member

• Environment Engineer, GPCB

Member

• Invited Expert

Invitee Members

• Concerned Dealing Hands, GPCB

Convener

• Environment Engineer, GPCB

# ROLE OF CORE TEAM

Understanding the European BREF document

Develop / Formulate Guidance document for preparation of BREF document

Selection & formulation of TWG committee in consultation with MS, GPCB & UBA Officials

Finalization of Time frame for Preparation of BREF Document

Sensitize the respective GPCB ROs, Textile Industries Associations and Member Industries about the process

# ROLE OF CORE TEAM

Arrange kick-off meetings

Finalization of Questionnaire under guidance of UBA officials

Arrange TWG Meetings

Disseminate the information & getting comments on BIS

Scrutinize & verify the data collected

Overall supervision of BREF Process

Follow the timeline

# ROLE OF AUTHOR (GCPC FOR TEXTILE SECTOR)

GCPC is appointed as the Author for BREF document  
GCPC in consultation with GPCB carries out following tasks :

Information collection and drafting the BREF document

Leads technical discussions in plenary and subgroup TWG meetings

Prepare background paper for TWG meetings

Checks & verifies the information submitted & asks for complements & clarifications

# ROLE OF AUTHOR (GCPC FOR TEXTILE SECTOR)

Ensures the overall management of the Knowledge Exchange Platform collaborative tool to ensure the transparency of the exchange of information

Presents the final draft BREF (approved by DFBARC) at Board meeting of GPCB



# TECHNICAL WORKING GROUP (TWG)

Technical Work Group (TWG) consists of:

UBA

Core Team Members

Author

Concerned ROs, GPCB

Textile industries associations in Gujarat

Sector specific experts

Academic Institutes

Textile research institutes (ATIRA, MANTRA)

Environment related Non – Government Organizations

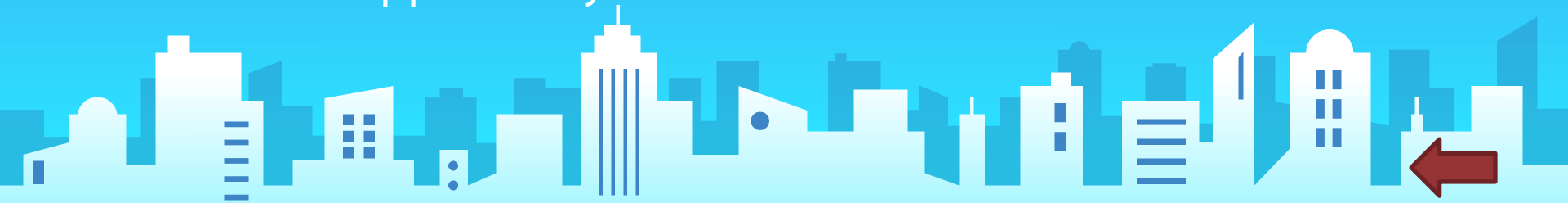
Textile machinery, Dyes, Chemical & Auxiliary manufacturers

# ROLE OF DFBARC

‘Draft Final BREF Assessment & Review Committee (DFBARC)’ is headed by MS, GPCB and two independent committee members (to be nominated by TWG)

In case of split views not resolved unanimously, then the same will be resolved by this committee during TWG meeting

The draft final BREF will be assessed and reviewed by DFBARC before final approval by Board



# METHODOLOGY ADOPTED DETAILS

(Back Up)

# STEP 1

## IDENTIFYING DIFFERENT TEXTILE CLUSTERS

Textile Cluster

```
graph TD; A[Textile Cluster] --> B[Jetpur (Cotton)]; A --> C[Ahmedabad (Cotton)]; A --> D[Surat (Polyester)];
```

Jetpur (Cotton)

Ahmedabad (Cotton)

Surat (Polyester)

## STEP 2

# PREPARING QUESTIONNAIRE AND WISH LIST

- Wish list was invited from TWG members wherein their inputs were asked for the preparation of BREF document.
- A questionnaire format was prepared for detail collection from the industry for the study of fabric processing in the industry.



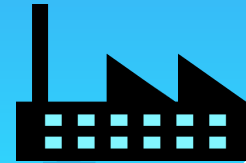
**Sector  
Specific  
Experts**



**NGOs**



**Educational /  
Research Institute**



**Industries /  
Industries  
Associations**

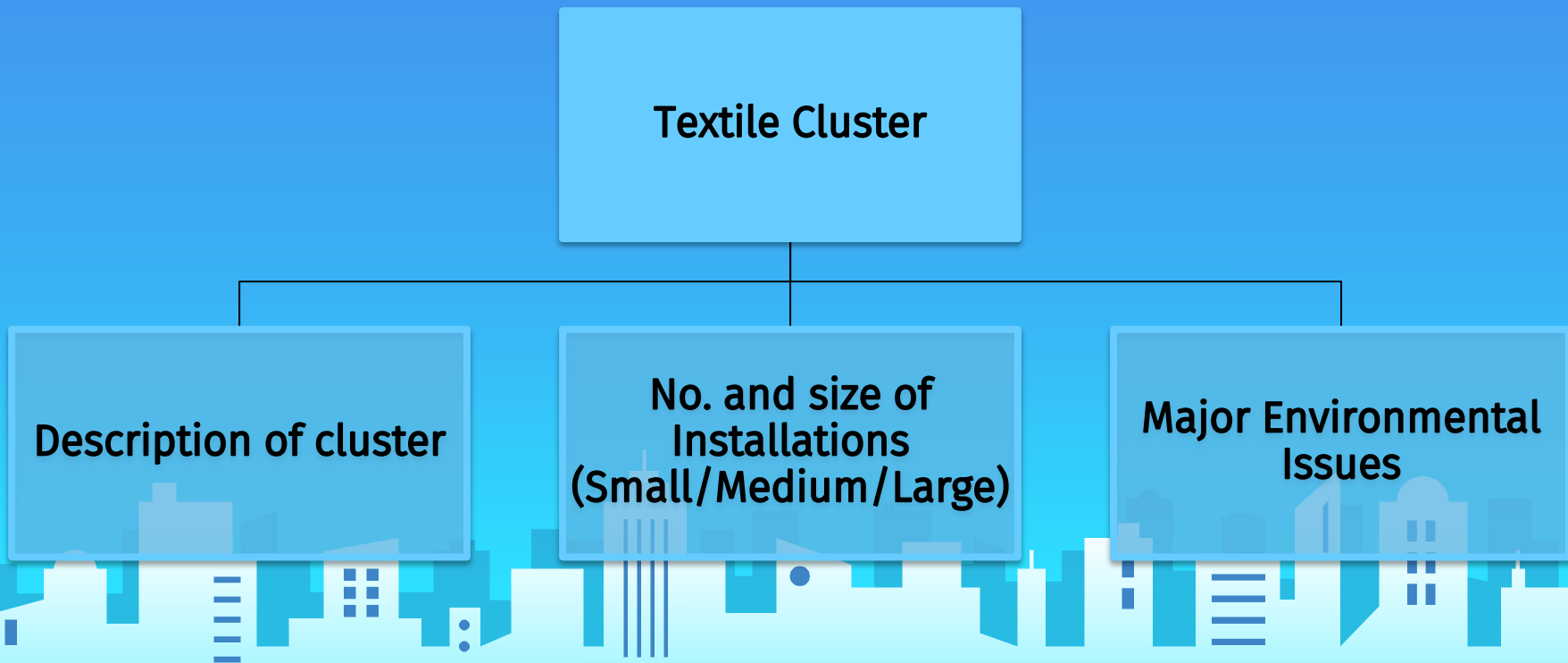


**Special  
Invitees**

# STEP 3

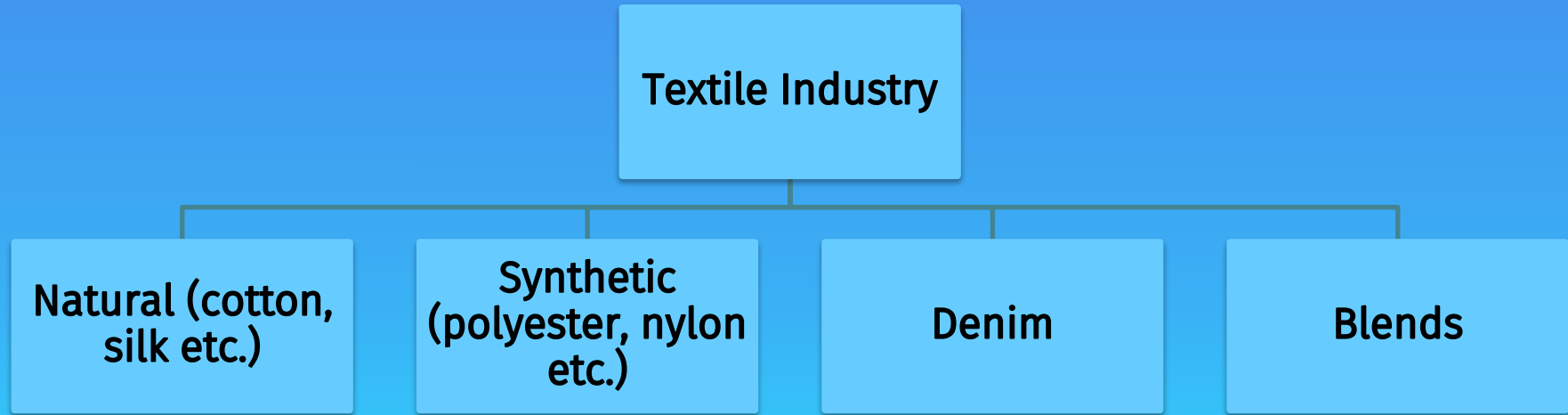
## INFORMATION COLLECTION AT CLUSTER LEVEL

Finalising the reference plants and questionnaire



# STEP 3

## INFORMATION COLLECTION AT CLUSTER LEVEL



# STEP 4

## INFORMATION COLLECTION AT INDUSTRY LEVEL

Listing out sample industries among the selected clusters



### Ahmedabad 20

- Dyeing & Printing Units
- Denim Manufacturing
- Table Printing Units



### Surat 12

- Dyeing Units
- Dyeing & Printing Units



### Jetpur 15

- Pre-treatment Units
- Table Printing Units
- Washing ghats



## STEP 4

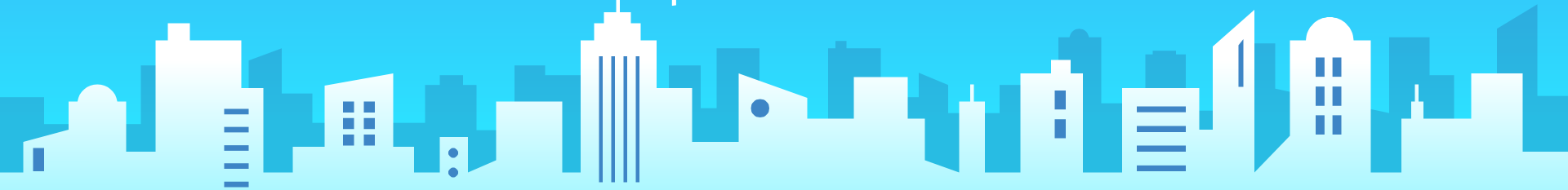
### **INFORMATION COLLECTION AT INDUSTRY LEVEL**

Details from reference plants in each cluster collected by Author as per the questionnaire format designed under guidance of UBA officials and GPCB.

## STEP 5

### **CHECKING/VERIFICATION OF THE INFORMATION**

Author in consultation with GPCB will assess / check / verify the information submitted and provide feedback to the TWG



## STEP 6

# DETAILING OF DIFFERENT TECHNIQUES USED

Description

Technical Description

Environmental Benefits Achieved

Environmental Performance And Operational Data

Cross-media Effects

Technical Considerations Relevant To Applicability

Economics

Driving Force For Implementation

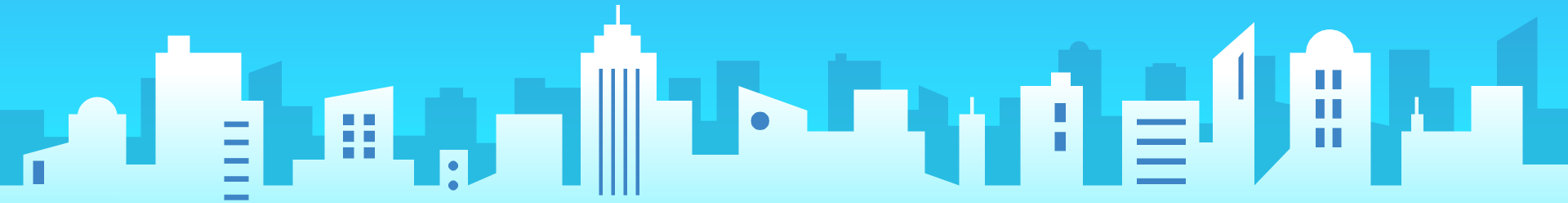
Example Plants

Reference Literature And Literature Survey For Emerging Technologies

## STEP 7

# SCRUTINY - ANALYSIS OF DATA & COMPILING

- Author in consultation with GPCB, will steer the work on determining BAT, guided by the principles of technical expertise, transparency and neutrality
- Its work entails the independent verification and analysis of the information collected to derive BAT conclusions



## **STEP 8**

# **DISSEMINATION ON BIS**

Author will disseminate the draft BREF on BIS for review and comments

## **STEP 9**

# **ELABORATION OF THE 1st & 2nd FORMAL DRAFT**

Elaboration of the drafts prepared among TWG and asking for their comments

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 <a href="#">Guidance Document on drawing up of BREF Document</a>	1	1	<a href="#">Guidance Document on draw...</a> 02-21-2017, 06:36 AM by BJain_GPCPC	
 <a href="#">Kick Off Meeting 16th January 2017</a>	2	3	<a href="#">Minutes of Meeting</a> 01-26-2017, 06:42 PM by Kiri	
 <a href="#">Wishlist for BREF</a>	1	16	<a href="#">Revised Wish List</a> 05-01-2017, 07:22 AM by Arvind	
 <a href="#">Data Collection</a>	2	3	<a href="#">Revised Questionnaire and...</a> 02-28-2017, 12:13 PM by ROVatva_GPCB	
 <a href="#">BREF Chapters</a> Chapter 1 - Introduction Chapter 2 - Applied Processes and Techniques Chapter 3 - Current Emission and Consumption Levels	1	2 (1)	<a href="#">Draft Chapters for review</a> 10-11-2017, 11:25 AM by Kiri	

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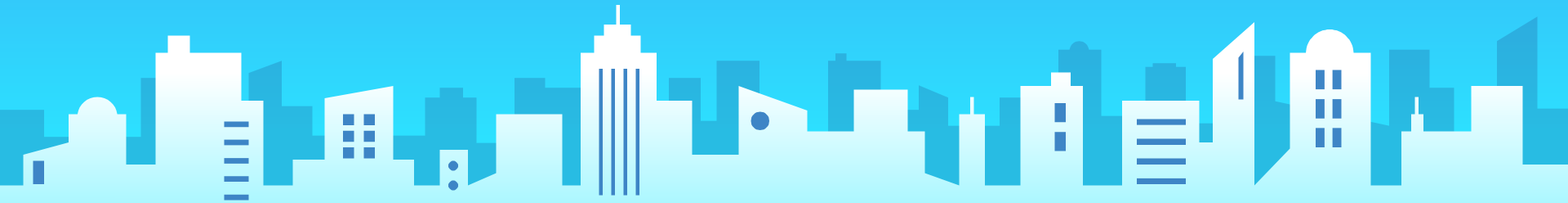
## **STEP 10**

# **REVIEW & FINALIZATION BY DFBARC**

Author will finalise the BREF document draft and submit to Draft Final BREF Assessment and Review Committee (DFBARC) for review

## **STEP 11**

# **SUBMISSION OF DRAFT FINAL BREF TO BOARD**





# **STEP 12**

## **DRAFT BREF RECOMMENDED TO GOVERNMENT BY BOARD FOR PUBLICATION**

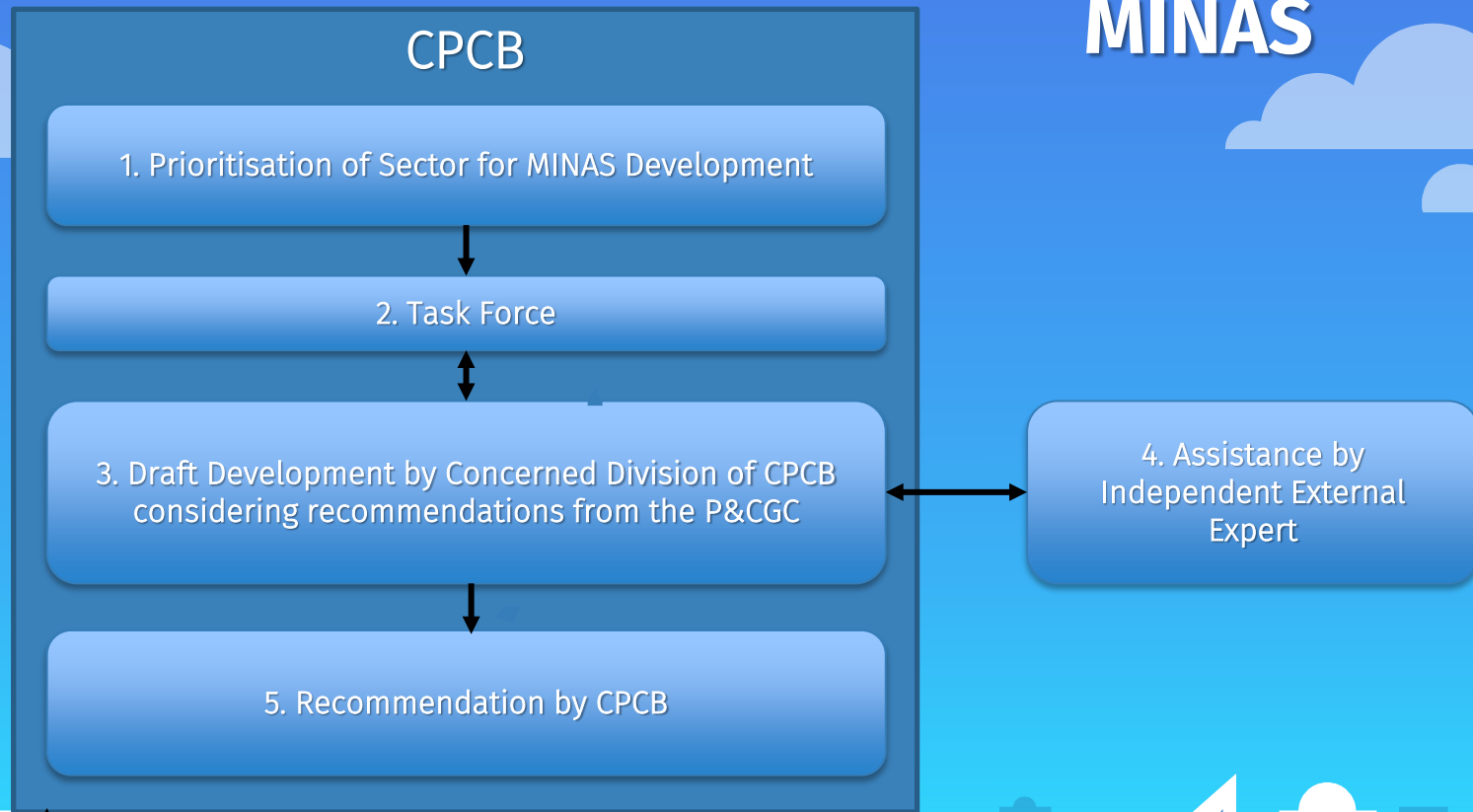


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