

# Experience in Monitoring and Indicators of the NAS/NAP including relevant framing conditions from Austria

Workshop on Monitoring and Indicators for Adaptation, July 7, 2022

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This project is funded by  
the European Union

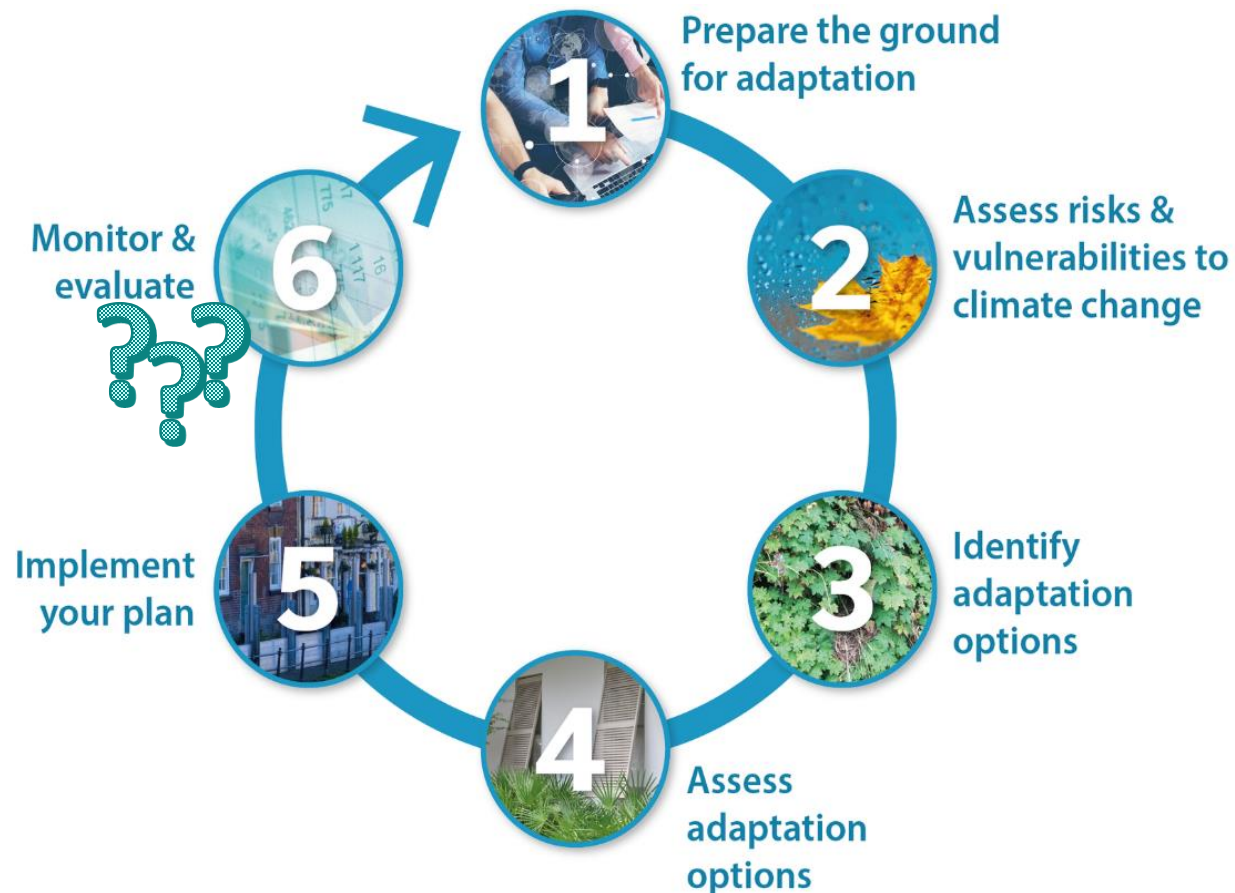
umweltbundesamt<sup>U</sup> **NIRAS**

The project is implemented by the Consortium of  
Umweltbundesamt GmbH (lead) and NIRAS

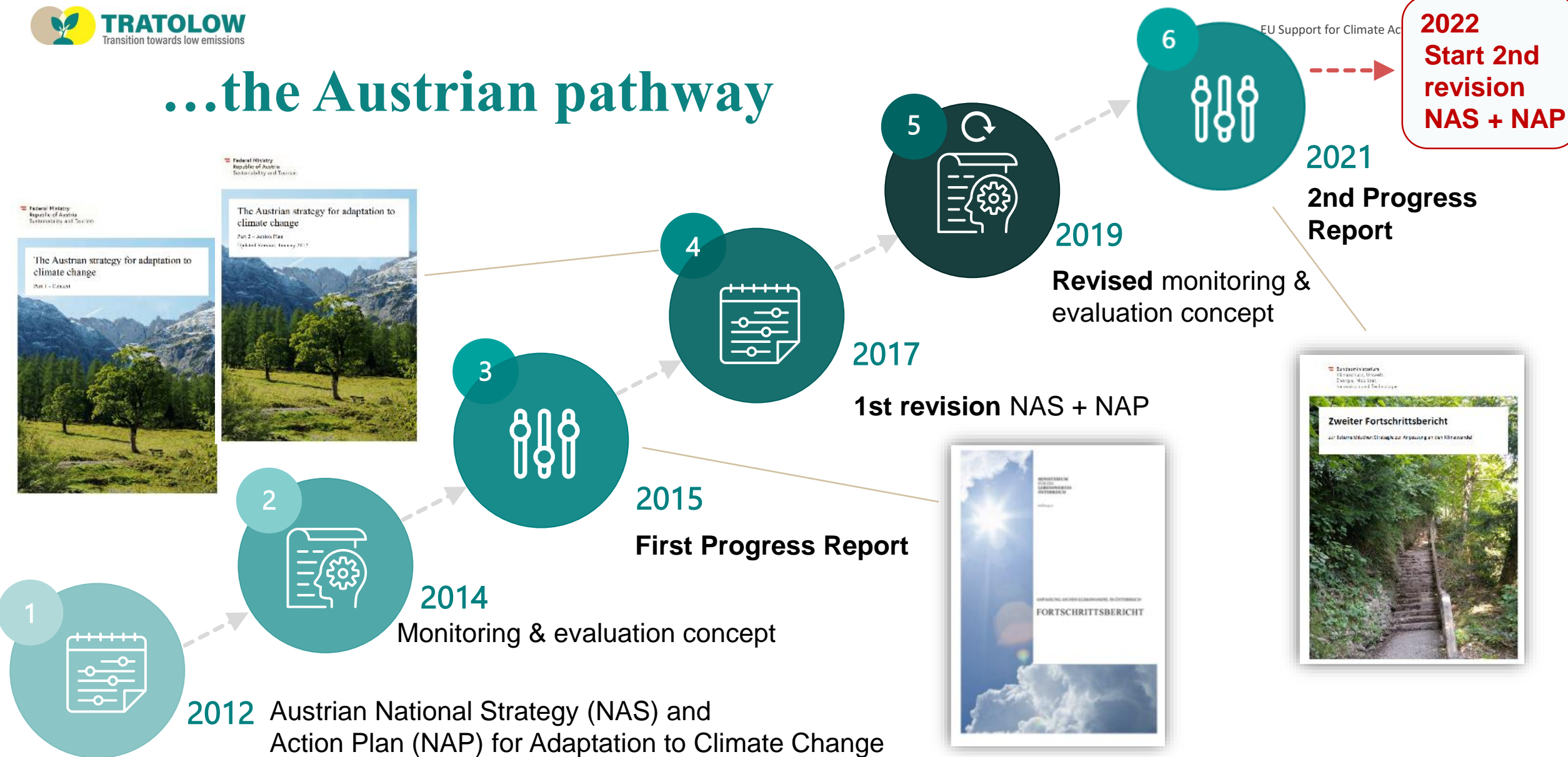
# Policy Cycle – Adapting to Climate Change

...the Austrian pathway until today

National Level

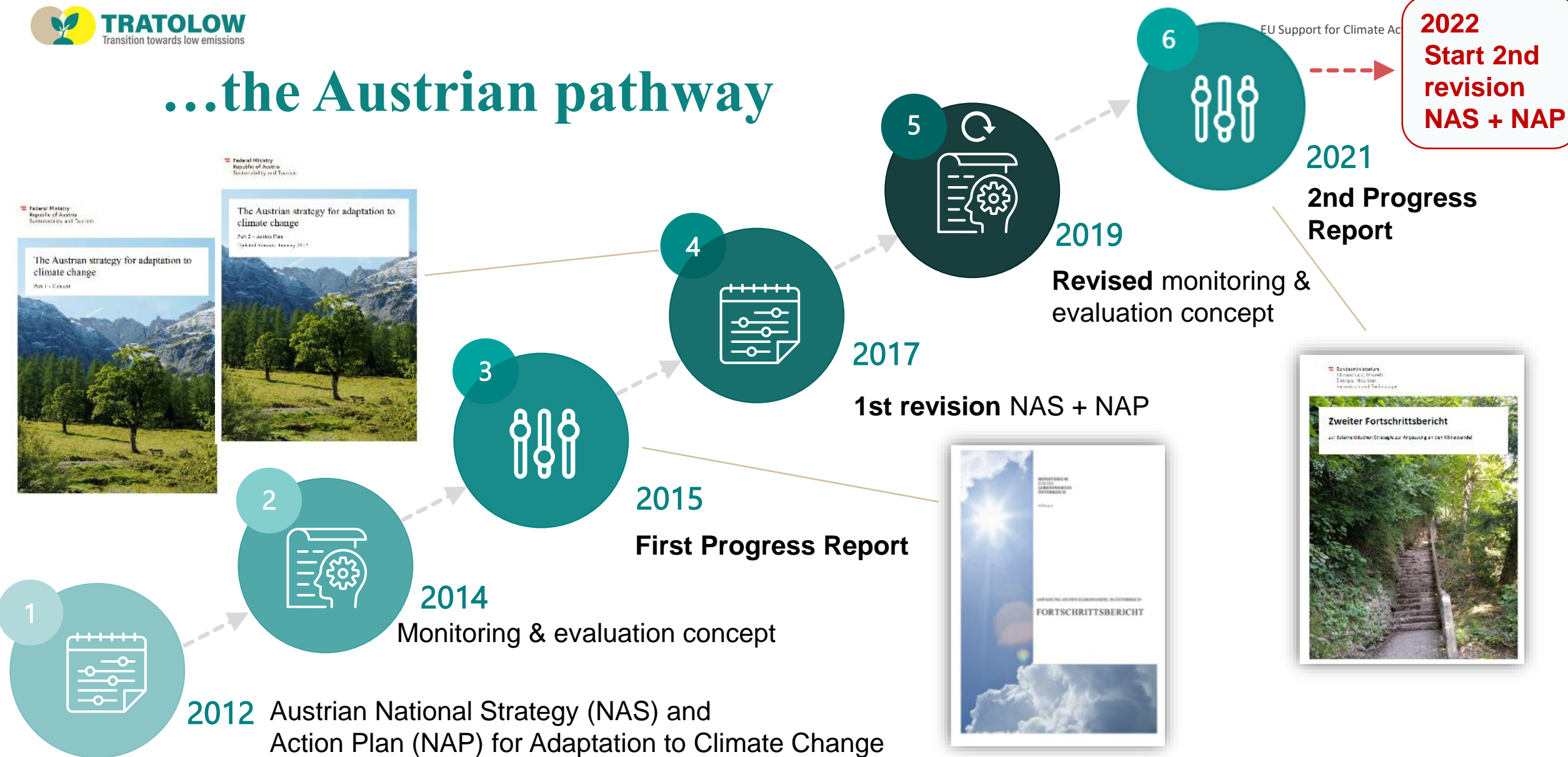


# ...the Austrian pathway





# ...the Austrian pathway



# NAS and NAP: Development process

- Coordination unit: Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology
- Process start: **2007**
- Scientific and expert studies (vulnerability assessments, proposals for adaptation options)
- > 2 years long broad, inclusive **national participation process**
- Covering all intensity levels of stakeholder involvement: information, written consultation, workshops



# National Adaptation Strategy & Action Plan <sup>136</sup> recommendations for action

- Country-wide strategic frame
- Broad, comprehensive, and h

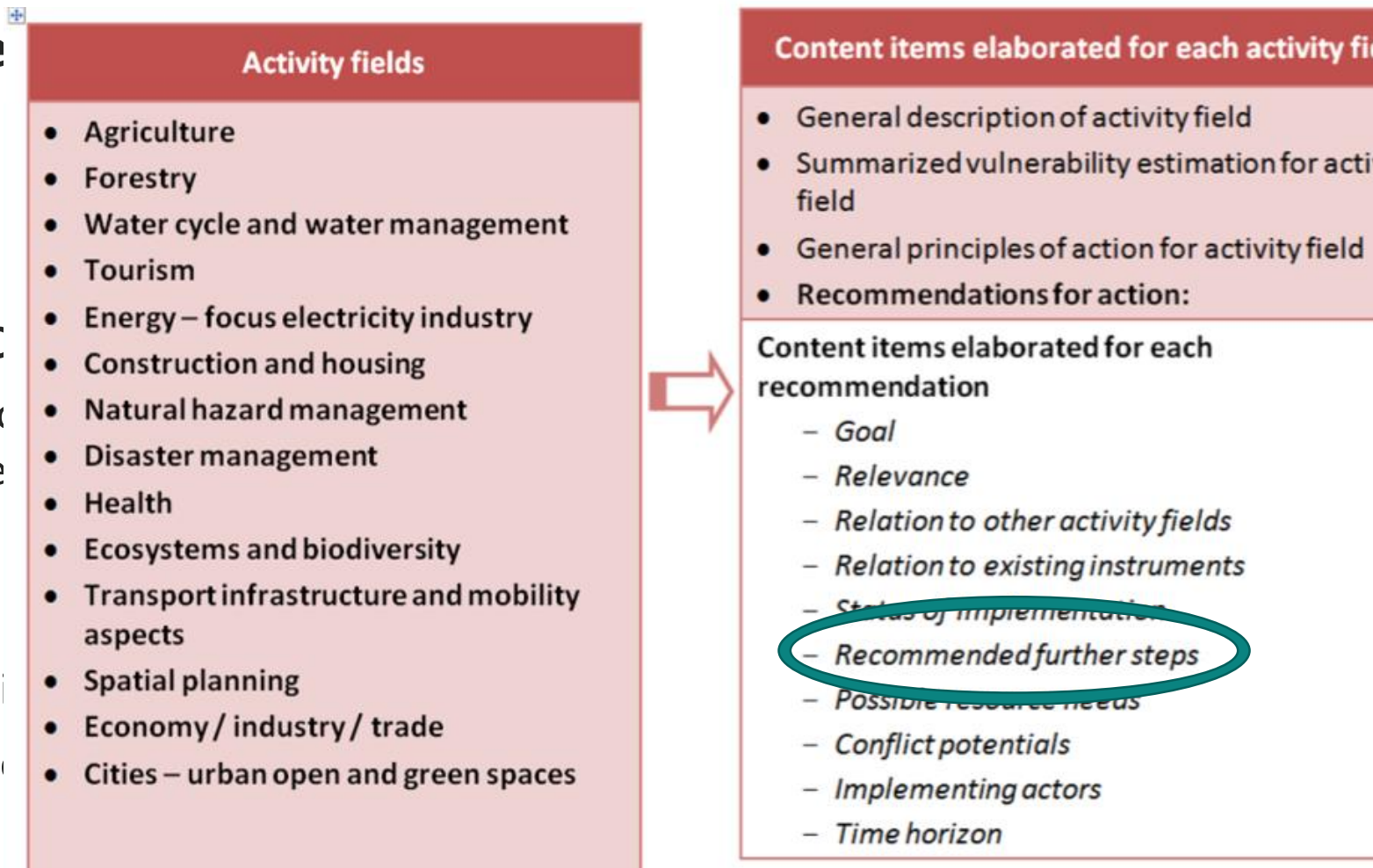
Two parts

## Part I: Strategic framework and

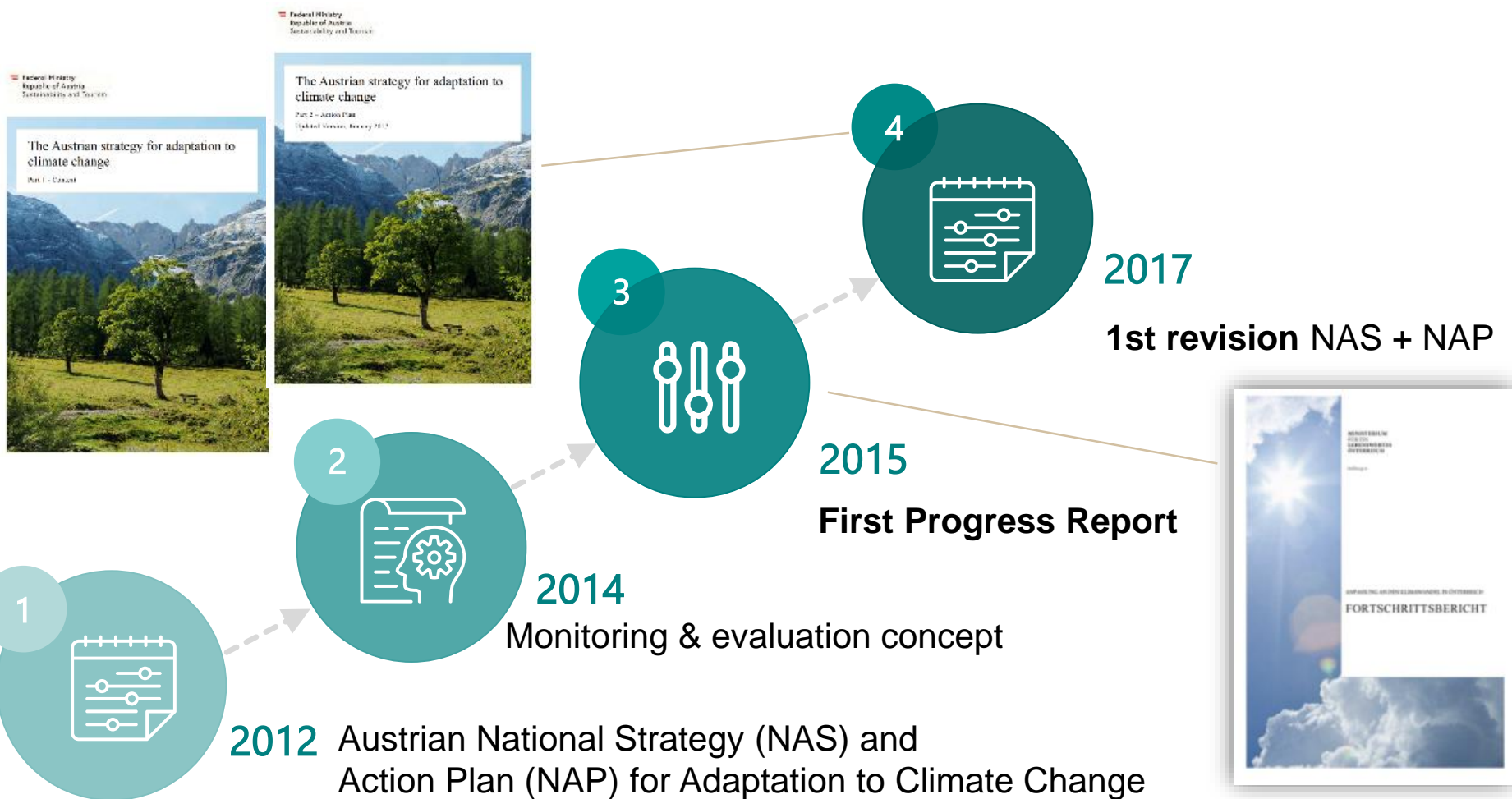
- Including: policy objectives, info criteria, cross-cutting recomme

## Part II: Action Plan

- 14 activity fields (sectors)
- 136 recommendations for action
- High level of concreteness, sp



# ...the Austrian pathway





# 1<sup>st</sup> Progress Report

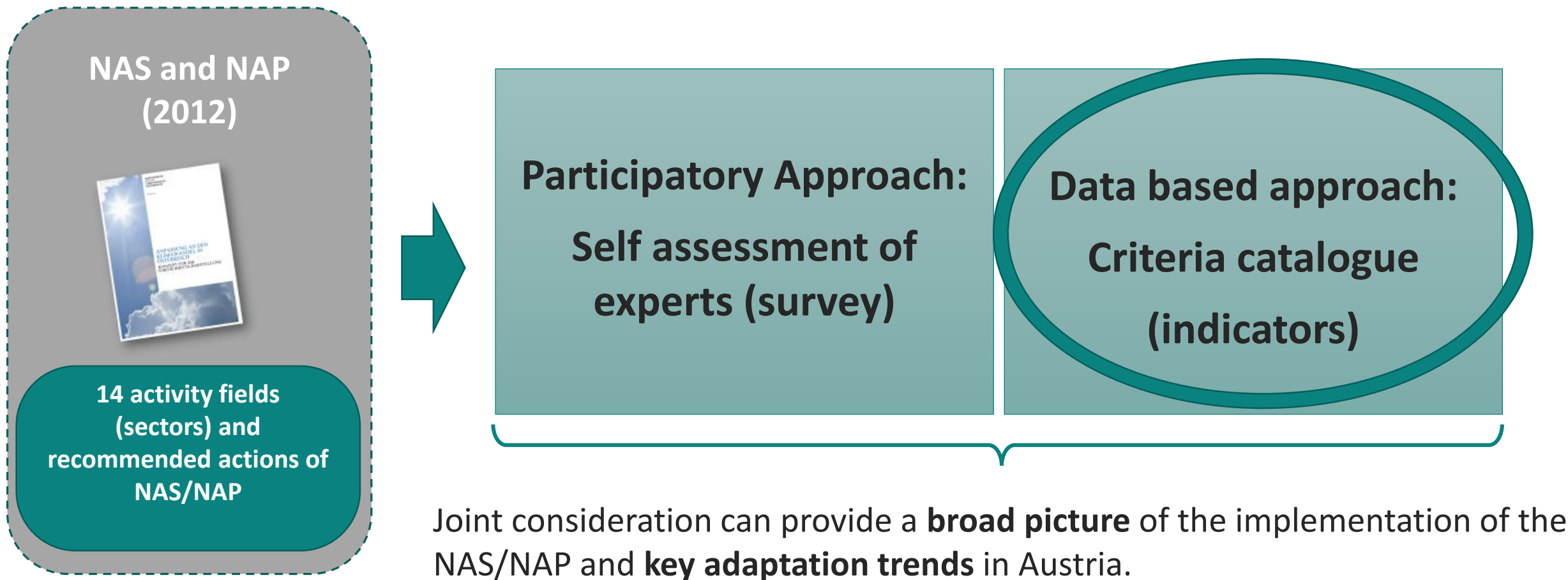




# 1st Progress Report Concept: Development process

- Comparative analysis of **international M&E concepts** (e.g. UK, F, DE, CH)
- Analyses of **Austrian monitoring and indicator** approaches (e.g. Biodiversity monitoring, Sustainability Indicators)
- **Expert studies and consultation** in all 14 activity fields (indicators relevant for adaptation; data availability)
- Participation of stakeholders in concept development  
--> **expert workshop** on indicators
- Methodological concept for monitoring needs to be **pragmatic**

# 1st Progress Report - Concept



# Criteria Catalogue – 1<sup>st</sup> Progress Report

- **45** criteria
- 3-5 criteria for each activity field
- **Mix of criteria types** (vulnerability, adaptive capacity, etc.)
- **Qualitative and quantitative** criteria

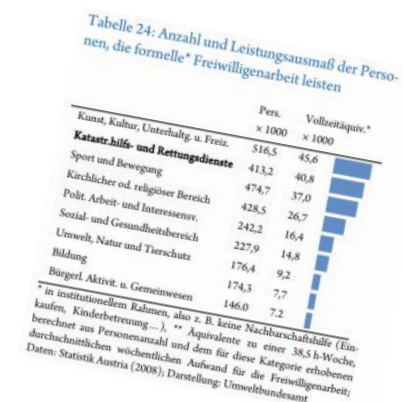
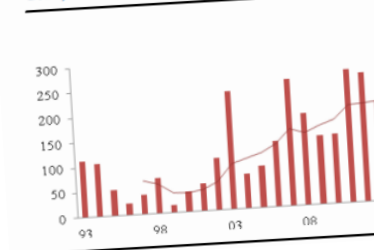


Tabelle 19: Potenziell gefährdete Gebäude in signifikanten Hochwasserrisikogebieten 2013

HW-Risikozone		% **
HQ 100	82.600	3,5
HQ 300	154.000	6,4

\* im Jahr 2013 in Risikogebieten, \*\* Anteil am Gesamtgebäudebestand<sup>12</sup> (2.399.545).  
Daten: Umweltbundesamt GmbH, BMLFUW: interne Auswertung aus der Hochwasser-Fachdatenbank, 2014;

Abbildung 8: Anzahl der angezeigten Waldbrände in den Jahren 1993–2014 (Daten: Institut für Waldbau 2014). Linie: gleitendes Fünfjahresmittel



# Criteria Catalogue – 1st Progress Report

## Minimum requirements for criteria:

- Relevant for adaptation!
- Capture core of essential content
- Use existing/easily accessible data
- Enable widely accepted interpretation
- React to changes and measures
- As consistent as possible

Tabelle 24: Anzahl und Leistungsausmaß der Personen, die formelle\* Freiwilligenarbeit leisten

	Pers. × 1000	Vollzeitsäquiv.* × 1000
Kunst, Kultur, Unterhaltg. u. Freiz.	516,5	45,6
<b>Katastr.hilfe- und Rettungsdienste</b>	<b>413,2</b>	<b>40,8</b>
Sport und Bewegung	474,7	37,0
Kirchlicher od. religiöser Bereich	428,5	26,7
Polit. Arbeit- und Interessensv.	242,2	16,4
Sozial- und Gesundheitsbereich	227,9	14,8
Umwelt, Natur und Tierschutz	176,4	9,2
Bildung	174,3	7,7
Bürgerl. Aktivit. u. Gemeinwesen	146,0	7,2

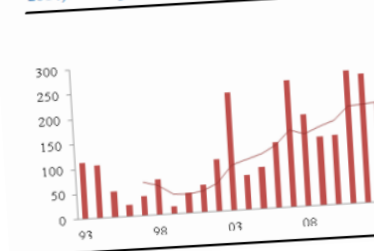
\* in institutionellem Rahmen, also z. B. keine Nachbarschaftshilfe (Einkaufen, Kinderbetreuung...), \*\* Äquivalente zu einer 38,5 h-Woche, berechnet aus Personenanzahl und dem für diese Kategorie erhobenen durchschnittlichen wöchentlichen Aufwand für die Freiwilligenarbeit; Daten: Statistik Austria (2008); Darstellung: Umweltbundesamt

Tabelle 19: Potentielle ... Gebäude in signifikanten Hochwasserrisikogebieten 2013

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Abbildung 8: Anzahl der angezeigten Waldbrände in den Jahren 1993–2014 (Daten: Institut für Waldbau 2014). Linie: gleitendes Fünfjahresmittel





# Criteria Examples

## quantitative

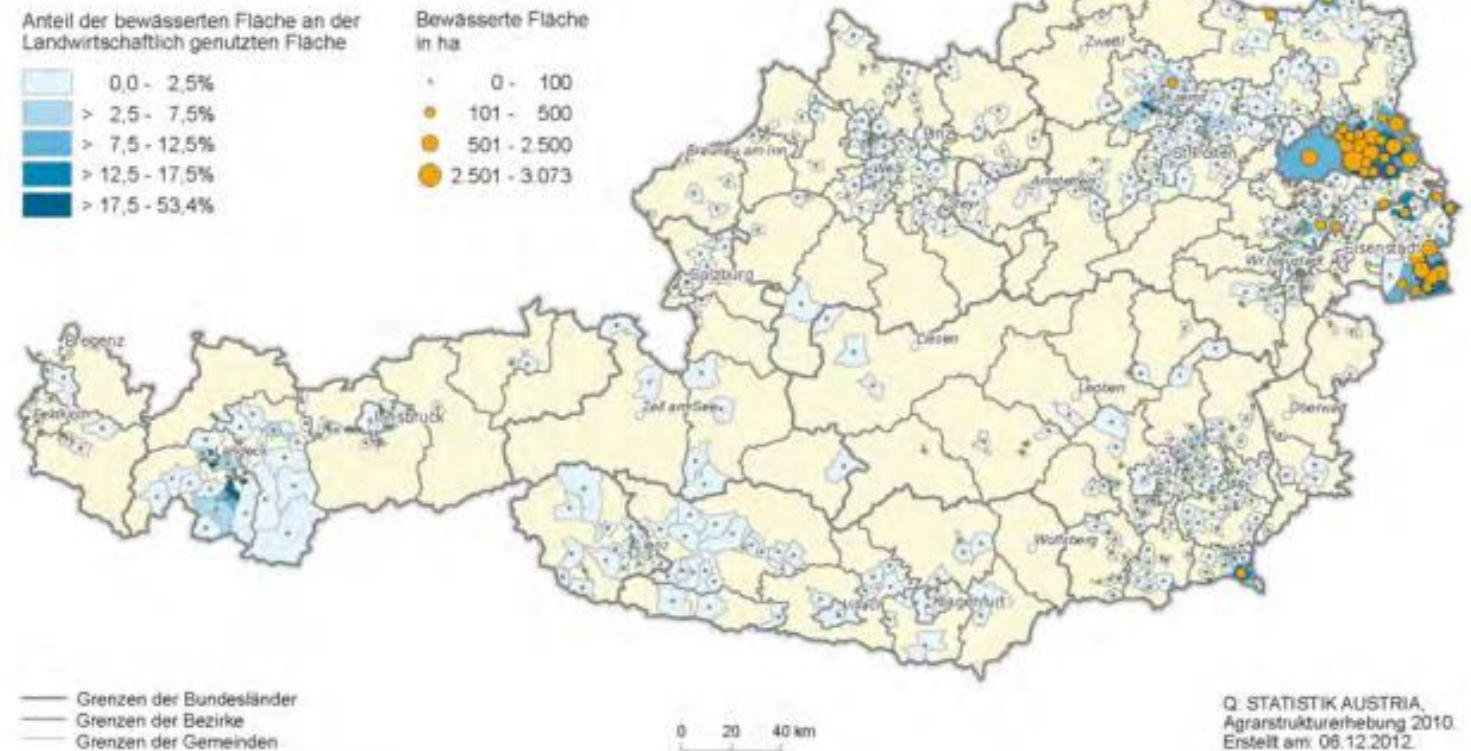
### Area of farmland with irrigation systems

Sector: Agriculture

Shows the trend of water use in agriculture as reaction to more drought.

#### Agrarstrukturhebung 2010

Agricultural land: Irrigated area by municipality



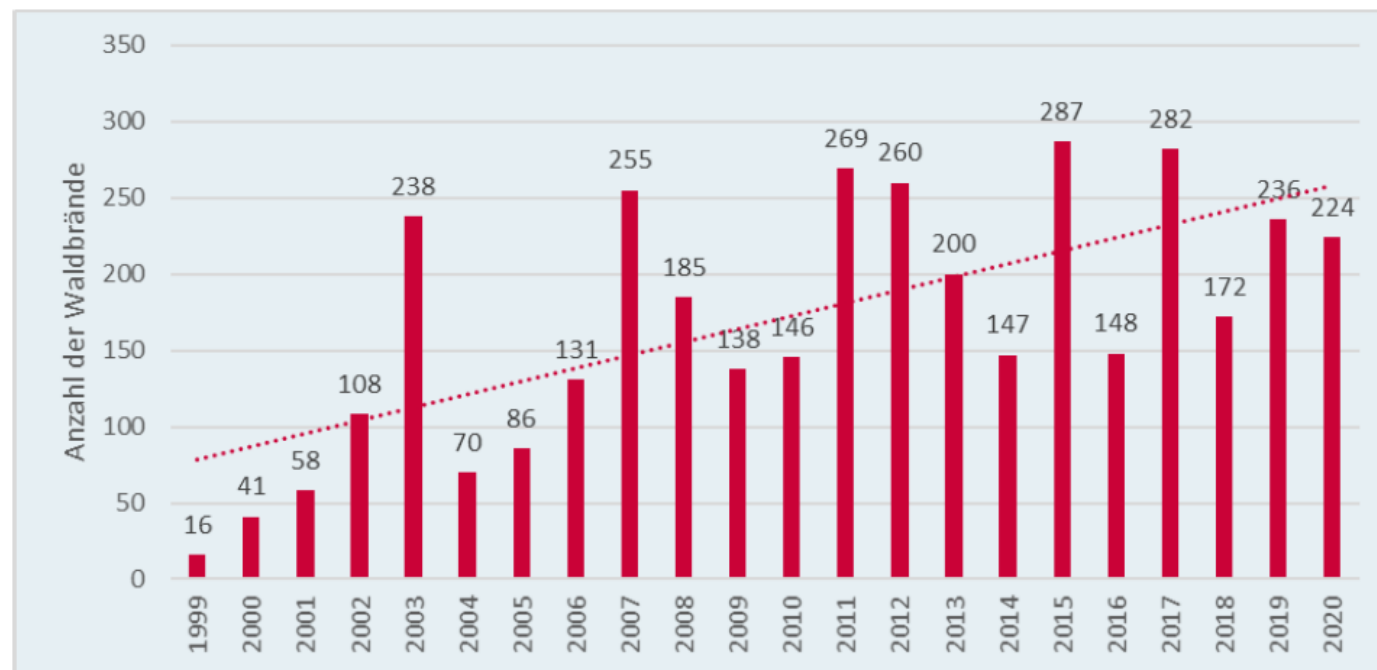
# Criteria Examples quantitative

## Forest dieback

Sector: Forestry

Shows the stress of forests due to a changing climate (forest dieback through wildfires, storms, bark beetle or game influence).

Number of wildfires in Austria, year 1999 to November 2020



Quelle: Waldbranddatenbank Österreich (BOKU Institut für Waldbau, Fire Database)

# Criteria Examples qualitative

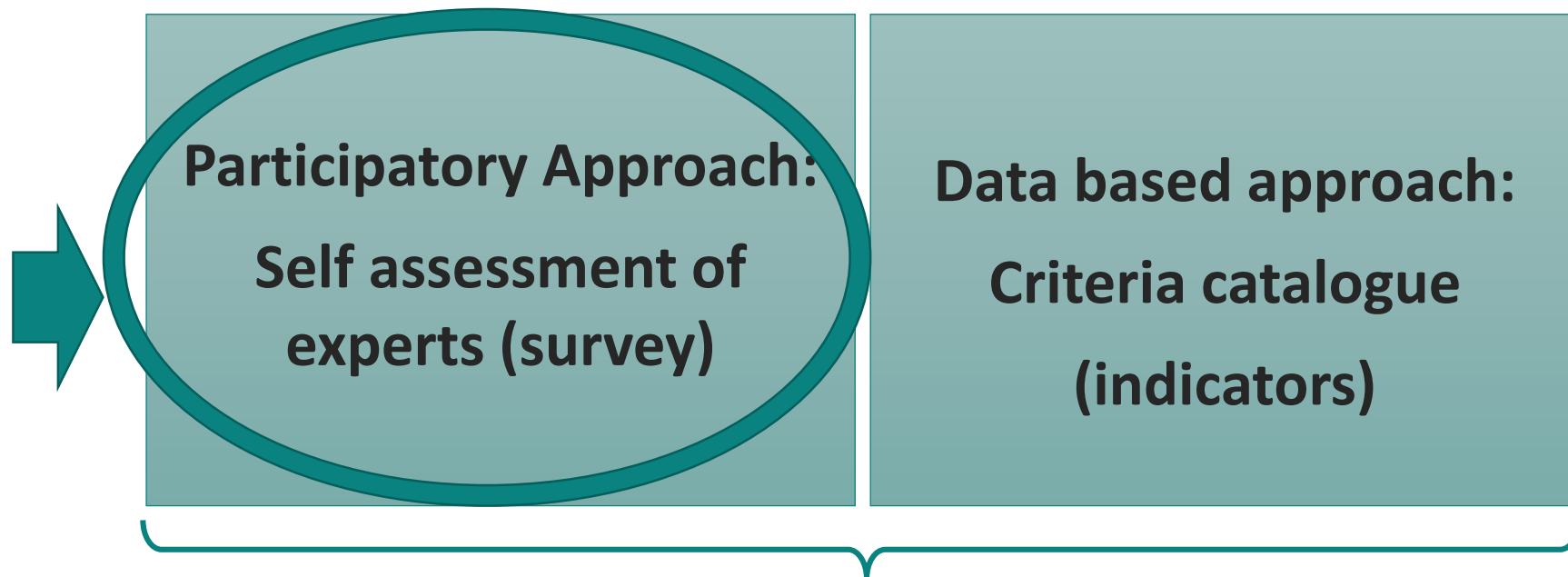
## Mainstreaming of climate change adaptation into instruments of nature conservation

Sector: Biodiversity

Shows the extent to which instruments of nature conservation (such as management plans of national parks, strategies and programs) consider adaptation relevant aspects/measures.



# 1st Progress Report - Concept



Joint consideration can provide a **broad picture** of the implementation of the NAS/NAP and **key adaptation trends** in Austria.



# Expert self assessment / survey

- Excel survey among experts of all 14 activity fields (respectively for their specific field)
- Target group: Ministries, federal states, other relevant stakeholder groups
- Stage of implementation of adaptation actions and measures (136 action recommendation in NAS/NAP)

**3.9.4.3 Umgang mit Hochwässern, Muren, Lawinen, Rutschungen und Steinschlägen**

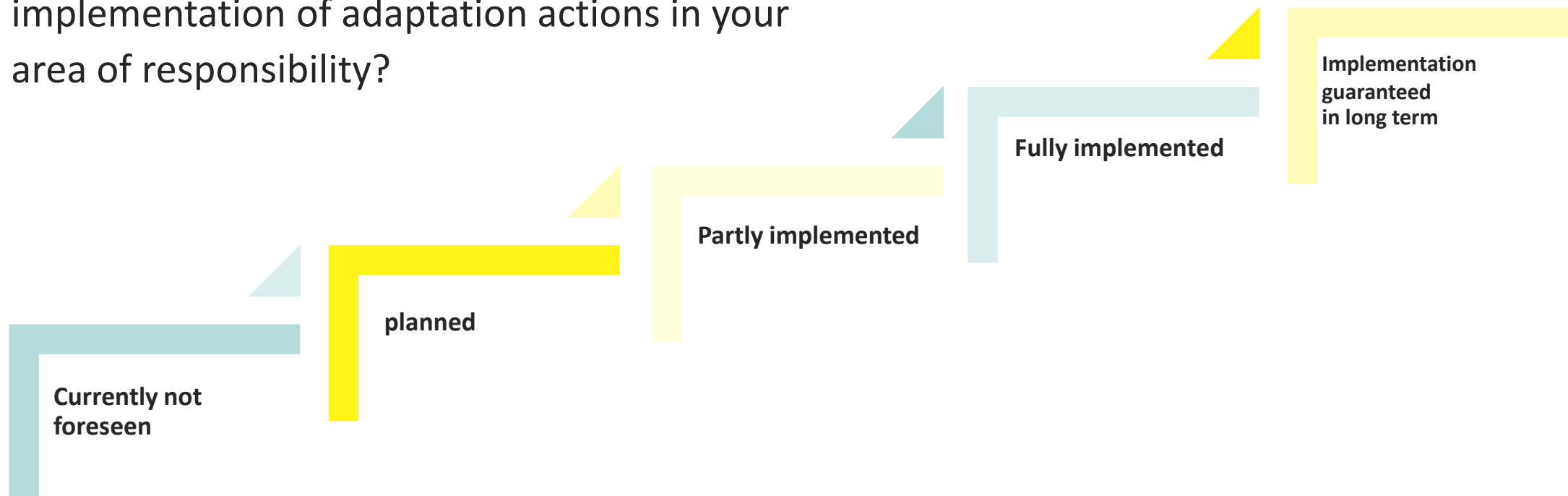
Ziel: Aufrechterhaltung der Versorgungsfunktion zentraler Bereiche im Katastrophenfall und Verhinderung von Todesfällen, von akuten und chronischen sowie physischen und psychischen Gesundheitsfolgen

empfohlene weitere Schritte	nicht zuständig	ist, nicht vorgesehen	geplant	teilw. umgesetzt	vollständig umgesetzt	vollständig und langfristig umgesetzt	bitte Details angeben
Bundesweite Koordination und Kommunikation sowie stärkere Vernetzung der Hilfsorganisationen;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Definition zentraler Versorgungsbereiche in den Kommunen und vorausschauende Planung von Kapazitäten (unter Berücksichtigung von übergreifenden Szenarienübungen);	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Überprüfung und ggf. Verbesserung bestehender Notfallpläne bzw. Koordination und Zusammenführung von Notfallplänen;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Bereitstellung von Kriseninterventionsteams vor Ort für die Erstversorgung im Katastrophenfall;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Erhöhung der Kapazitäten von Einsatzkräften im Ernstfall;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Weitere Schaffung von Anreizen zur Gewinnung freiwilliger Helferinnen (z. B. durch den Gesetzgeber) und entsprechende Vorbereitung und Schulung der Einsatzkräfte;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Organisation einer frühzeitigen Intervention sowie einer längerfristigen psychischen Betreuung der Betroffenen mit posttraumatischen Belastungsstörungen;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Sicherung der Trinkwasserversorgung und Aufrechterhaltung der hygienisch unbedenklichen sanitären Entsorgung von Fäkalien nach Extremereignissen;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Kontinuierliche Überwachung der Trinkwasserqualität zur Prävention und Verhinderung von Kontaminationen insbesondere bei Extremereignissen (Infektionserregern, die zu Durchfallerkrankungen führen, chemische Verunreinigungen etc.) und Gewährleistung der Zugriffsmöglichkeiten;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Berücksichtigung einer möglichst geringen Anfälligkeit der Wasserversorgung und Abwasserentsorgung gegenüber Extremereignissen bereits bei der Planung und Ausführung;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Implementierung des Wassersicherheitsplanes der WHO für Betreiber von Wasserversorgungsanlagen;	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

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# Expert self assessment / survey

- Self assessment: How is the state of implementation of adaptation actions in your area of responsibility?



# Lessons learned - Survey

- **Complex questionnaires** – 136 recommended adaptation actions
- Requires **background knowledge** (about adaptation and the adaptation strategy)
- **Misunderstandings** (e.g. who is responsible for responding to the survey)
- Met upon **some amount of resistance** (workload for state administrations, processing of large data volumes by M&E coordinators)  
➔ no reporting obligations, only 'soft peer pressure' possible



# Lessons learned – Criteria Catalogue

- **NOT** all aspects of adaptation processes are “measurable”
- Limited **data availability** and **most data** available is **not directly related to adaptation**
- There are different ways of **interpreting quantitative and qualitative data**, a common understanding is needed and can be ensured with strong stakeholder engagement during monitoring, reporting, evaluation and the NAS/NAP revision

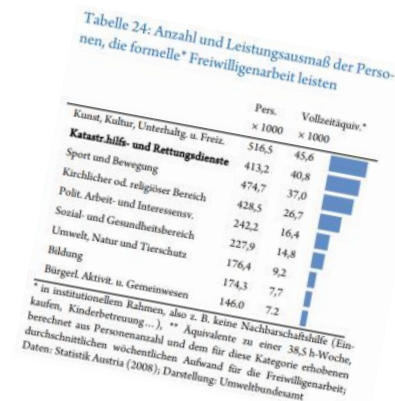
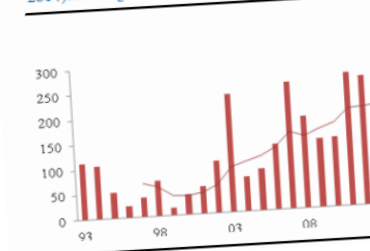


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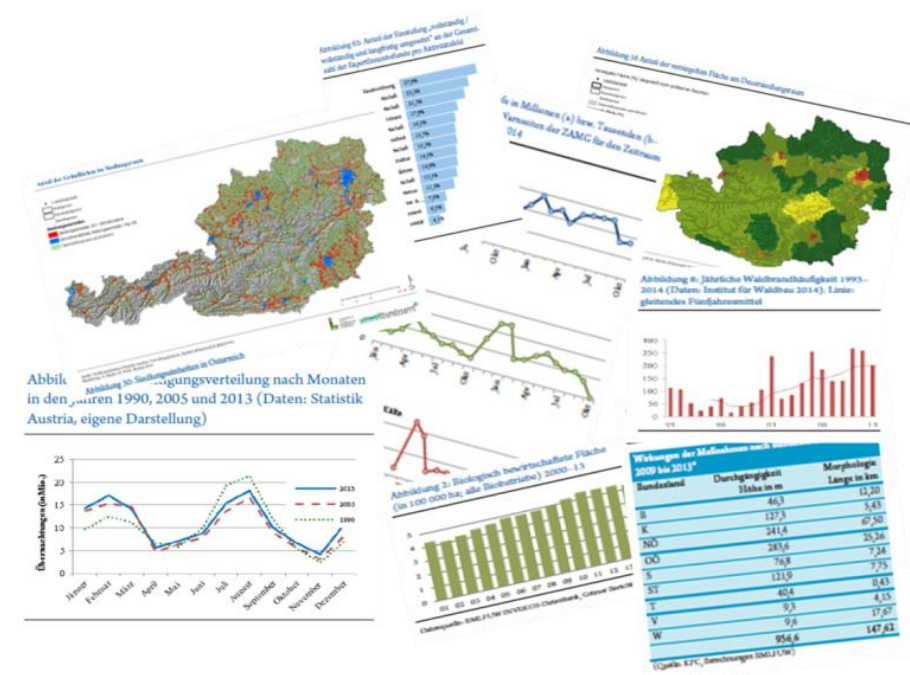
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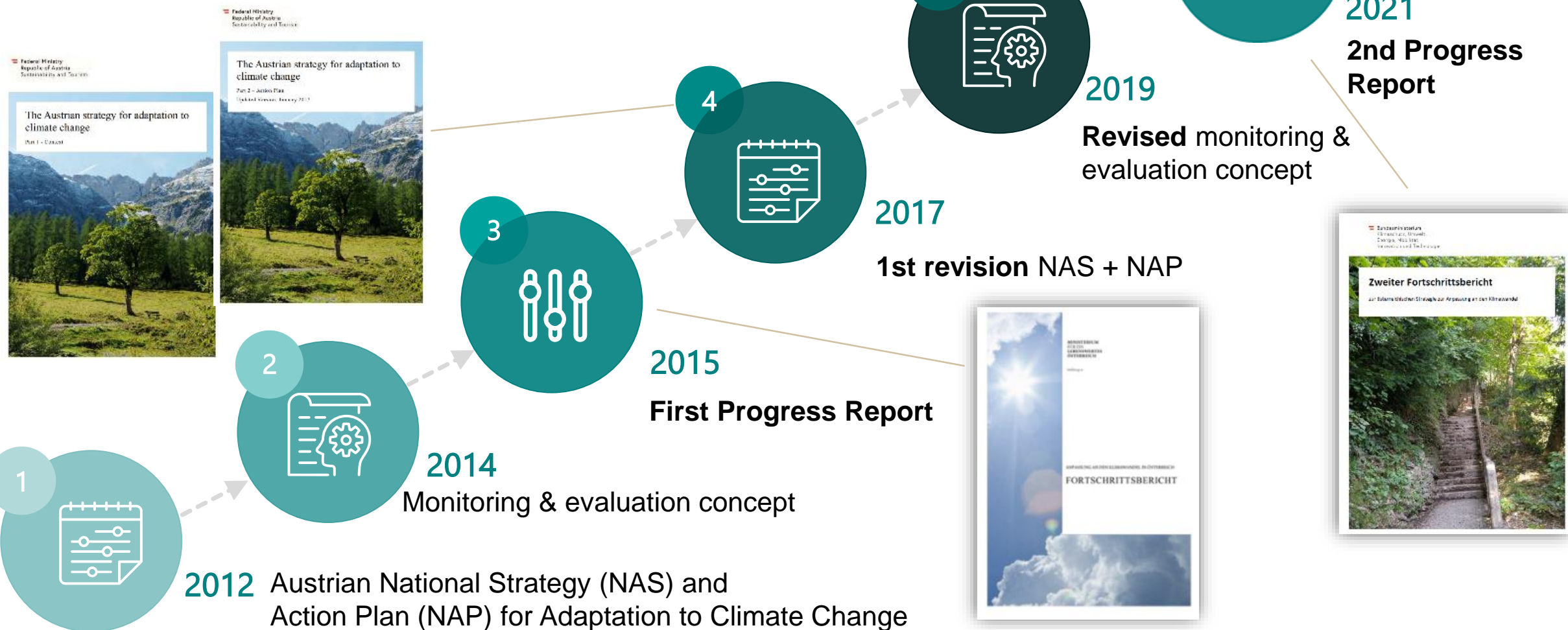


# Results of Monitoring – 1st Progress report

- 1<sup>st</sup> progress report give a **broad picture of the state of implementation** and of **key adaptation trends** in Austria (2015)
- Results show that **implementation and mainstreaming of adaptation were increasing** in Austria with **different levels of progress** in the various areas of action (positive examples: forestry, water management, the area of natural hazard management, agriculture)
- Based on the results of the 1<sup>st</sup> progress report, NAS and NAP were revised → NAS and NAP 2.0 (2017)



# ...the Austrian pathway



# Second MRE cycle – Lessons learned

- 1<sup>st</sup> Progress Report covered reporting, monitoring, interpretation / assessment of the state of implementation of the NAS
- BUT: Implementation progress  $\neq$  policy effectiveness
- Due to limitations in terms of resources, data availability, and cost-benefit considerations, the **Austrian M&E pathway leans more to monitoring and progress reporting** than to evaluation.

# Second MRE cycle – revised Concept

- Comparative analysis of selected **international M&E concepts** (CH, DE, UK, F) with options for re-adjustment in Austria was conducted.
- **Written stakeholder survey was replaced** with a **series of stakeholder workshops** per sectoral area of action in the NAP.
- The **criteria catalog was maintained**. Few criteria were supplemented or adjusted according to the latest research findings and developments.





# 2nd Progress Report – New Concept

NAS and NAP 2.0  
(2017)



Based on 14 activity fields  
(sectors) and  
recommended actions of  
NAS/NAP 2.0



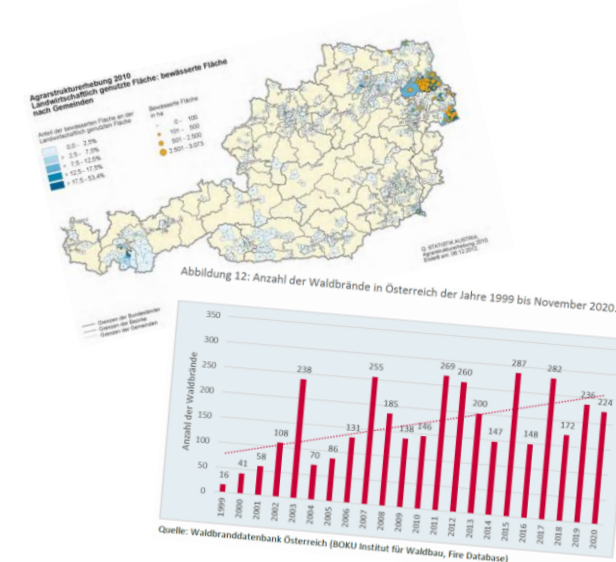
**Participatory Approach:**  
**Self assessment of  
experts**  
**Workshop series**

**Data based approach:**  
**Criteria catalogue  
(minor adjustments)**

Joint consideration can provide a **broad picture** of the implementation of the NAS/NAP and **key adaptation trends** in Austria.

# Lessons Learned – Criteria catalogue

- Available data /data collection **continues to develop** in some areas (e.g. houses in flood zones)
  - (negative) there are no comparable data → no trend evident
  - (positive) Significance of the data higher
- Indicators can communicate facts clearly and simply.  
BUT - be **careful when interpreting trends!** In some cases, contextual knowledge is important for interpretation.



# Lessons learned – Workshop series

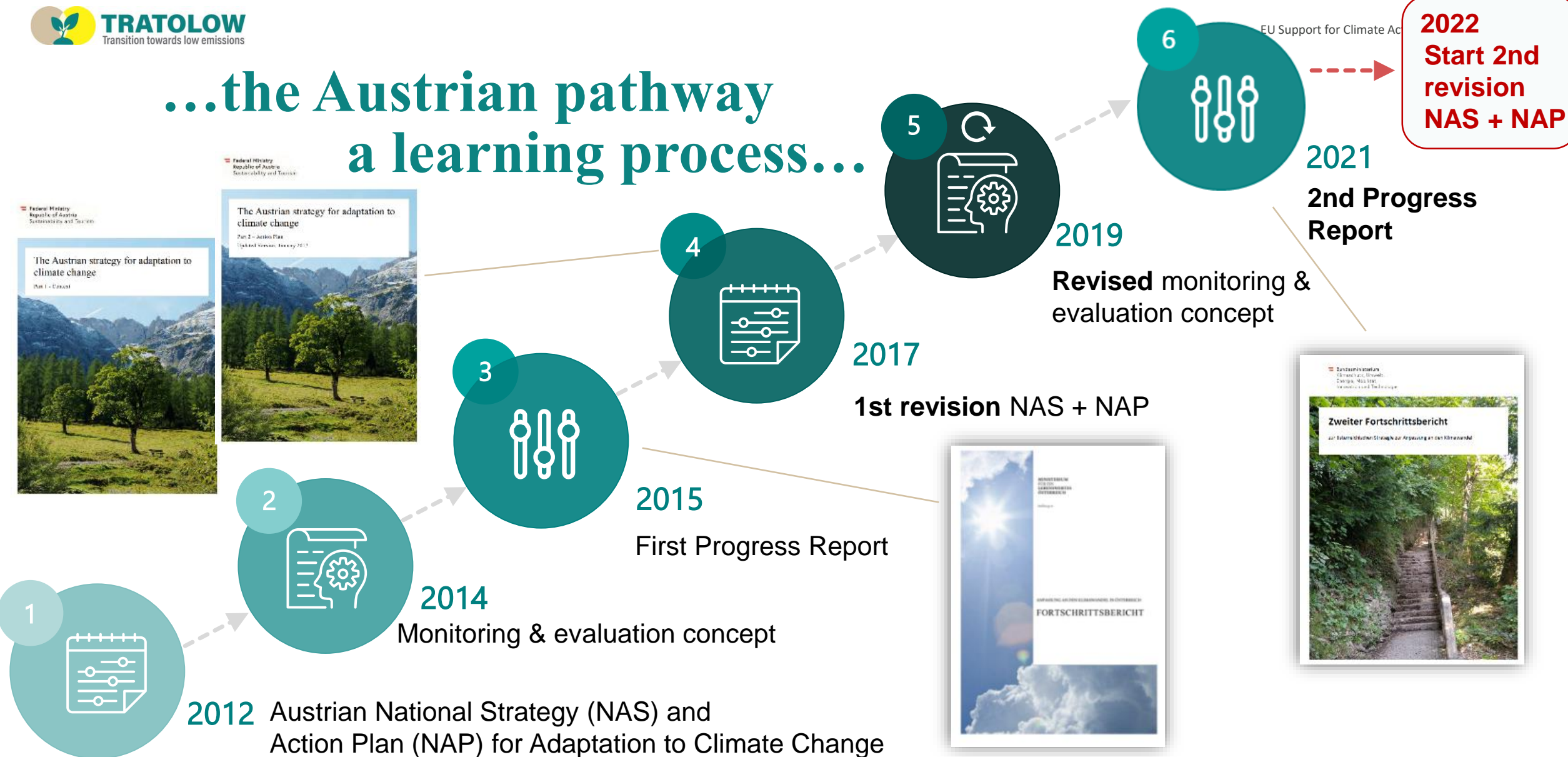
- **Workshops** delivered group-based **expert judgments** on the implementation progress
  - **provided rich in-depth insights** and **enhanced acceptance** among experts, authorities and stakeholder
- In addition, the second progress report presents **good-practice examples of adaptation**.
  - They illustrate the range of possible response options and are intended to **provide assistance and motivation for the implementation** of further adaptation measures.
  - The wide range of practical examples also shows that the **topic of adaptation has gained momentum**, particularly at the regional and local level.
- **Executive Summary** prepared which contains the **key messages** from the comprehensive version of the second progress report
  - **reporting key results** to policy maker and public



# Results of Monitoring - 2nd Progress report

- In summary, it can be stated that adaptation to climate change has become **much more important** and that **progress** in the individual areas of activity **can be well documented**.
- However, it can also be clearly deduced that despite the described progress **in all areas of activity, there is still a clear need for further action**. This applies in **particular to mainstreaming**, i.e. the basic and systematic consideration of aspects of adaptation in all relevant areas at the Federal, Provincial and municipal level.
- **Avoiding maladaptation** must also be a major focus, especially in the coming years.

# ...the Austrian pathway a learning process...





# Contact

**Umweltbundesamt**  
Spittelauer Lände 5,  
1090 Vienna, Austria



THANK YOU FOR YOUR ATTENTION!

**TRATOLOW Adaptation Working Group Leader:**

Markus Leitner

+43-1-31304-3536

+43-664-2626-345

[markus.leitner@umweltbundesamt.at](mailto:markus.leitner@umweltbundesamt.at)

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