Bundesministerium
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# Grid Forming Implementation in Germany

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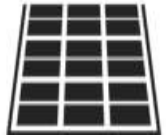
Federal Ministry for Economic Affairs and Energy

Workshop „Grid Forming Technology and System Flexibility: Technical Challenges and Regulatory and Policy Solutions“

6 Oct 2025

# System Stability Roadmap



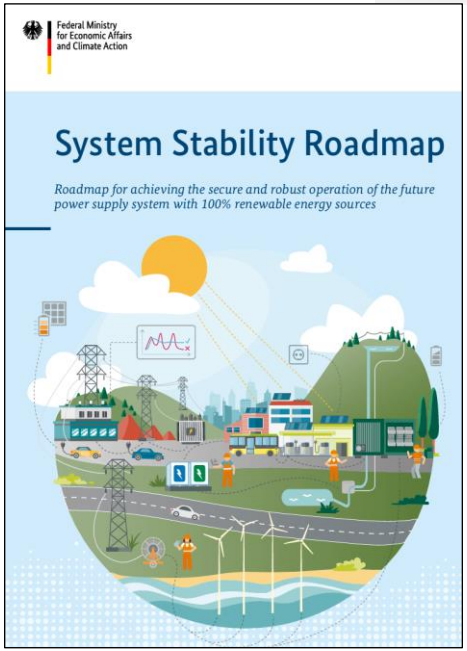
- **Overarching goal: secure and robust system operation with 100% RE**
  (≠ market-based security of supply)
- **Roadmap on how we achieve this**

**WHAT?** → **7 topics**

**WHO?** → **51 processes**

**WHEN?**

→ **Strategic and coordinating function**




https://www.bundeswirtschaftsministerium.de/Redaktion/EN/Dossier/system-stability-roadmap.html

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# General solutions: the three pillar model

**Three ways of providing ancillary services:**

§ 1. **Technical requirements** (obligatory; EU Network Codes + national technical connection rules)

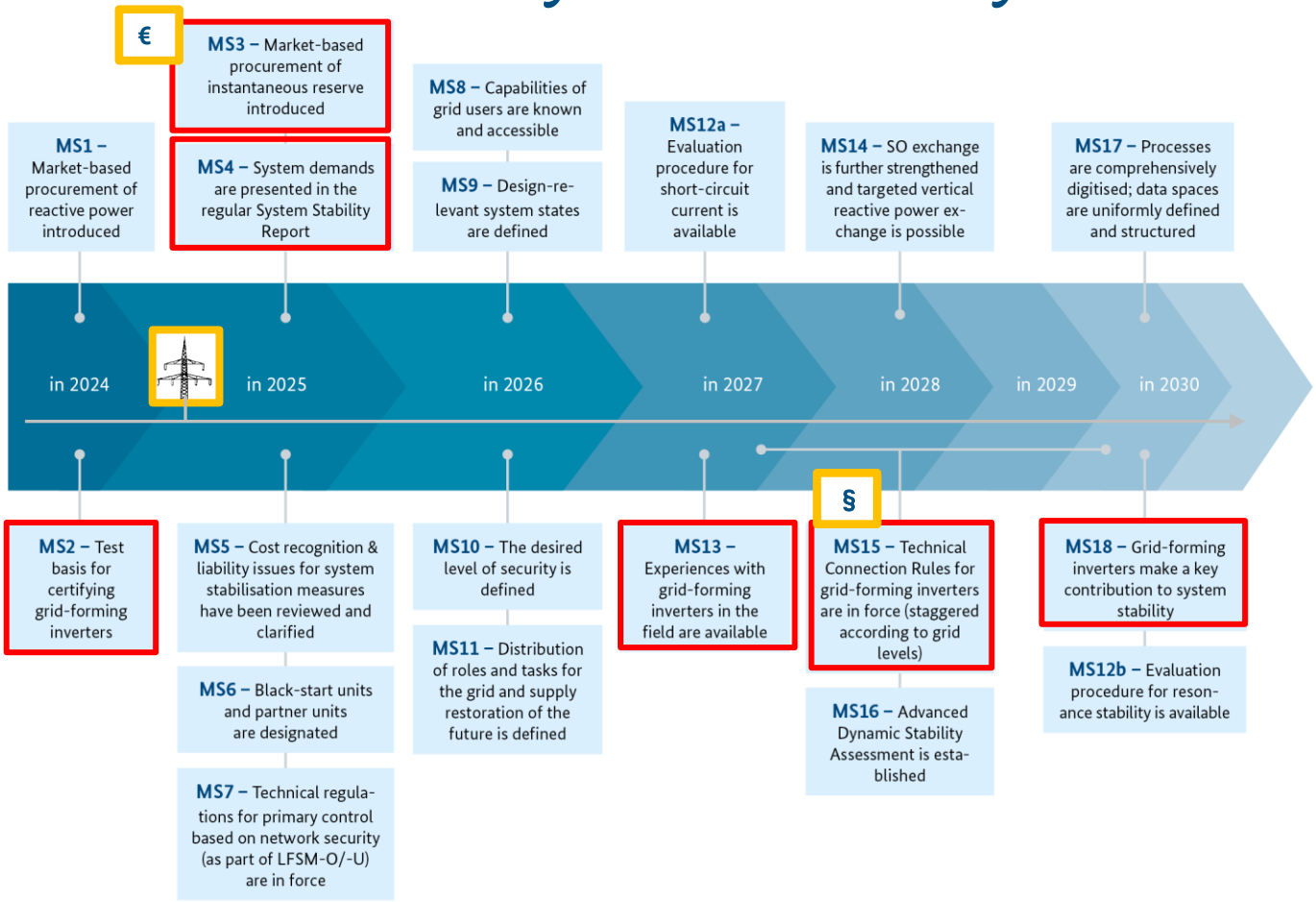
€ 2. **Market-based procurement** (paid, voluntary; BNetzA, TSOs, DSOs)

 3. **Fully integrated network components** (TSOs, DSOs)

→ Aim: **meet demand cost-efficiently**

→ Demand (when and volume) for some issues is so high that **all options need to be used**

# Key milestones of the System Stability Roadmap

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# backup

# Market-based procurement of inertia

- **Start procurement Jan 2026**
- **→ Opportunity for OEMs and project developers** (€€€), **have to develop**
- **Will accelerate introduction of grid-forming converters**
- **Gain experience with grid-forming converters**

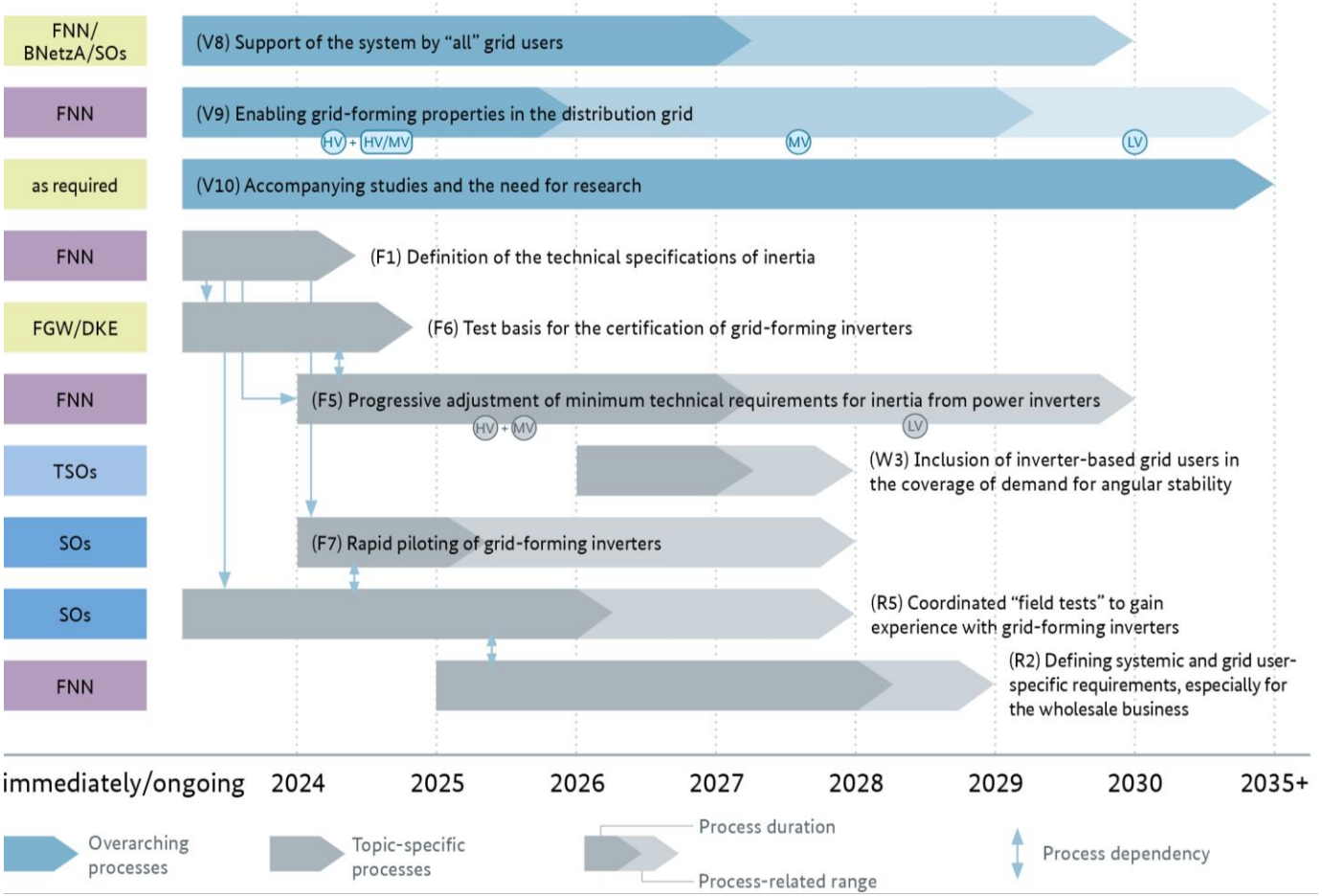
# Requirements for grid-forming facilities in grid codes

- **Already grid forming requirements for batteries on TSO grids in Germany**
- **Revision of EU NC RfG** (network code on requirements for grid connection of generators)
  - **Will contain requirements for grid forming converters**
  - **New NC RfG urgently needed**
  - **Then national implementation**

# Grid forming network components by TSOs

- **TSOs are already implementing** (e.g. grid forming (E-)STATCOMs)
- **Ongoing process**
- **Based on Network Development Plan and System Stability Report + approval BNetzA**

# Processes on “grid-forming inverters”

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