Standardization of a Unified Management Framework
Management of a system that is
- Cross technology (e.g. OFDM and MPLS)
- Cross domain (e.g. wireline and wireless)
- Cross layer (e.g. network and service)

Unified Management Framework (UMF)
- Defined translation of operator goals
- Exploitation of common knowledge
- Conflict avoidance

The UMF and its interfaces need to be standardized
Plans for standardization

AFI ISG

Scenario, Use Cases, and Requirements for Autonomic/ Self-Managing Future Internet

New Scenarios, Use cases & requirements

Architectural Reference Model for Autonomic Networking

New elements not currently addressed by "AFI-GANA"

SID

New elements in policy models for governance

Methods to orchestrate legacy and autonomic management operations

Realize management applications in an autonomic manner

TMForum

eTOM

Joint contribution from participating Network Operators

Proposal of Working Group within NGMN

Learning for TE, Learning for Routing, Learning for Fault-diagnosis

Learning Capable Communications Networks

NGMN

3GPP

New requirements (e.g. governance, monitoring), New set of use cases for SON in LTE-Advanced, Requirements related to SON coordination

In accordance to areas of interest (see Complexity BoF announcement at IETF81)

LCCN RG

Protocols and algorithms for managing constrained devices, Autonomics in the Internet

COMPLEXITY RG

Network Complexity

IRTF

NMGR

IRTF

Expectations

Assume the UMF would be standardized…

- Conflicts between management processes are resolved
  → No instabilities anymore → Trust

- High level operator goals are meaningfully translated to technical objectives

- Knowledge can readily be shared between different management processes → Better overall performance