

Research challenges in network management

- *Technical* Challenges
- Challenges of '*my*' team
- Lots of concepts to make it *simple*
- The REAL challenge then?

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(potential) Challenges



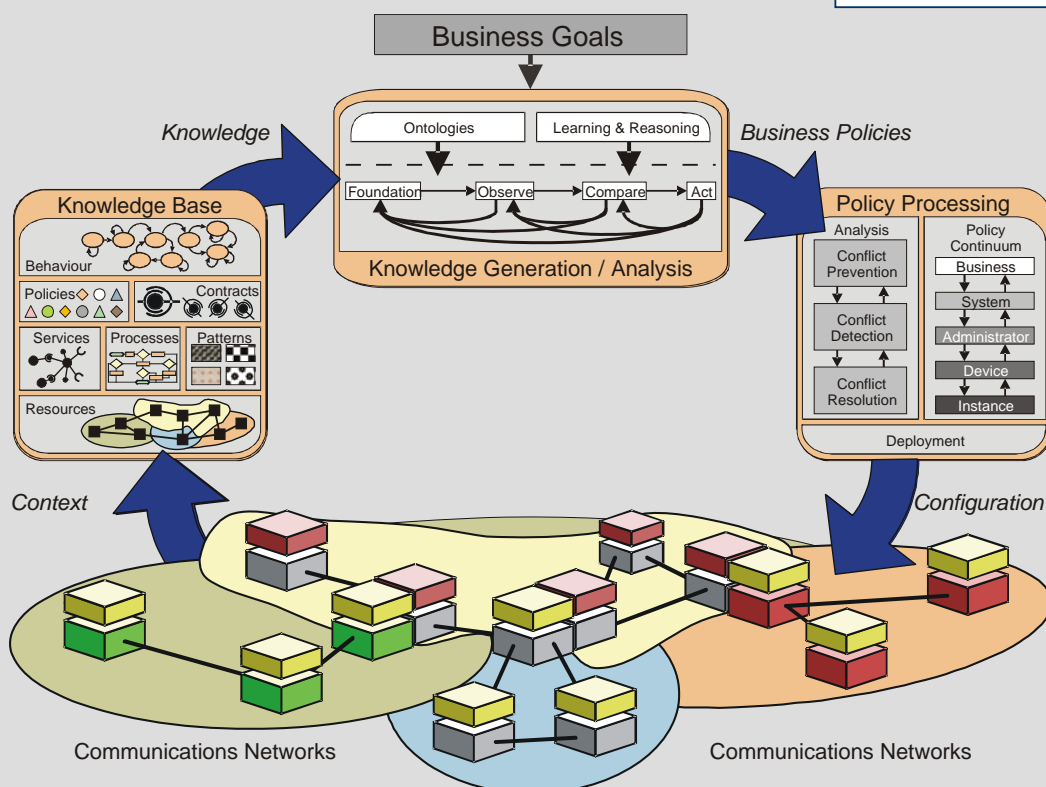
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- modelling Telecommunications Systems
- modelling Context Information
- applying Ontological Engineering
- advancing Policy-based Network Management
- applying Inference and Learning Techniques
- improving Algorithms and Processes

- **We do – Autonomic Network Management for**
 - Enabling networks to self-govern behaviour according to business goals
 - Knowledge-based business- to-network translation...
 - ...and vice versa

- **We need to be innovative by means of**
 - Model-centric approach for network management
 - Policy-continuum supporting all constituencies
 - Knowledge base (DEN-ng) abstracting dynamic structure, functionality and behaviour of networks

- **We are challenged by**
 - Addressing Service Provider / Network Operator need for flexible adaptation



- **Have a sound foundation**
 - Innovative research
- **Observe the real world**
 - Learn from sciences such as: biology, sociology, humanity
- **Compare our solutions with reality**
 - Scientific approaches with 'real world' needs, industrial AS WELL AS societal
- **Act (properly) by means of**
 - Integrating different sciences, technological approaches
- **BECAUSE**
 - There is no *right* or *wrong* – there is only a solution for a 'real' problem of 'real' people!