# ADELFE
# Meta-Model

**Carole BERNON & Marie-Pierre GLEIZES**
{bernon, gleizes}@irit.fr

http://www.irit.fr/SMAC/
IRIT - Toulouse III - France



## What is ADELFE?

- Agent-oriented methodology
- To build Adaptive Multi-Agent Systems
- Agents having a cooperation-driven social attitude
- http://www.irit.fr/ADELFE



## Why Meta-Modeling?

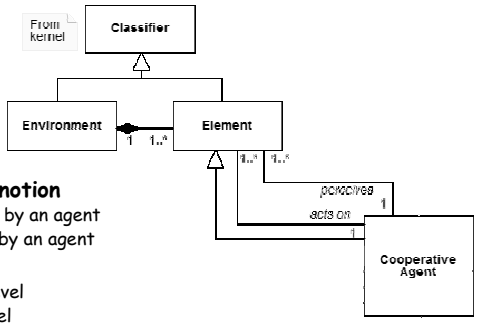
- **Meta-model**
  - ✓ Modelisation
  - ✓ Concepts definition
- **Advantages**
  - ✓ Unification eases model transformation
  - ✓ Design a system ≅ instantiate a meta-model



## Cooperative Agent

- Ignores the global function
- Local goal
- Cooperative relations with others

## The Environment

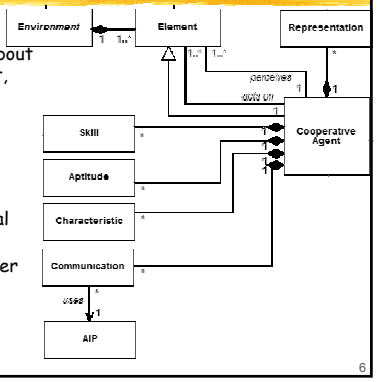



- **Important notion**
  - ✓ Perceived by an agent
  - ✓ Modified by an agent
- **Two levels**
  - ✓ System level
  - ✓ Agent level

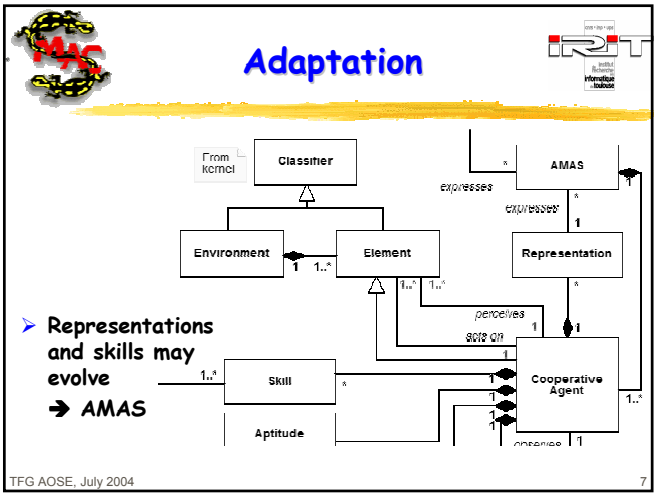


## Features of an Agent

- **An agent:**
  - ✓ Possesses knowledge about others, its environment, itself
  - ✓ Reasons about its knowledge and beliefs
  - ✓ Realises its partial function
  - ✓ Has intrinsic or physical properties
  - ✓ Communicates with other or its environment



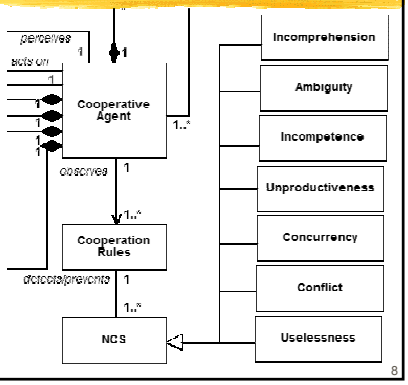
# Adaptation

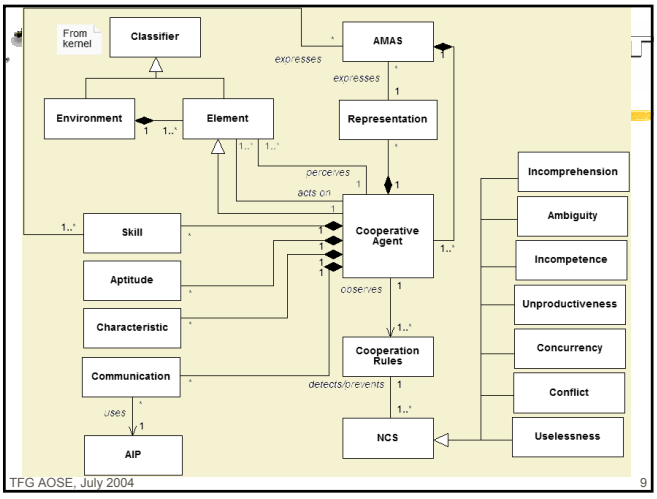



- Representations and skills may evolve
  ➔ AMAS



# Social Attitude of an Agent




- Local cooperation rules
- Detect and remove NCS