

# Stimulating Competence Development of Individuals and Organisations in Europe



## Competence

Building The European Network for Lifelong Competence Development

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Invited Address Online Educa Berlin  
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# Why an Infrastructure For Lifelong Competence Development?



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# Things we have agreed upon in Europe ...

- Knowledge Society: knowledge and innovation
- Lifelong Learning is a necessity
- Learning must be directed at the attainment of interoperable, accredited competences
- Learning must be adapted to individual and local characteristics (preferences, needs, language, etc.)
- Use of ICT/the Internet is of crucial importance



# However

- Current **Pedagogical & Organisational Models** for learning *do not meet the demands* and possibilities of lifelong competence development and the new learning technologies that are available
- For individuals, groups and organisations it is hard to **get an overview** of all the possible formal and informal learning opportunities that are available, and to identify the most appropriate ones
- For an organisation it is hard to **assess the competencies** of applicants, employees and learners who have studied and worked in a variety of settings or multiple countries
- The availability of **support** is crucial for effective task performance. Current e-learning environments provide too little effective and efficient support to the users
- Worlds of knowledge management, education, training and informal learning are **not integrated well enough**: many fragmented methods & tools



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# TENCompetence Project

- Development of an European Infrastructure for lifelong competence development
- Develops and integrates new models for lifelong competence development
- Infrastructure is based on integrated open source components, integrated into a SOA
- To be used by any individual, school, team or organisation to develop competences
- We don't start from scratch, but build on existing methods, open standards & open source tools



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# Some TENCompetence data

- EU IST–Technology Enhanced Learning Integrated Project
- 4 years: December 2005 – December 2009
- Budget 13.8 million euro + additional for pilots
- Pilots: digital cinema, health care workers, water management Nile region, Antwerp
- Building a growing network of associated partners:
  - bring in use cases
  - early access to software and documentation
  - organise additional pilots
  - develop business



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# Partners

- Open Universiteit Nederland (co-ordinator)
- ALTRAN (Software de Base, S.A. Madrid)
- LogicaCMG
- Universitat Pompeu Fabra Barcelona
- GIUNTI Interactive Labs
- Centre for Research and Technology - Hellas
- L3S (Universität Hannover)
- INSEAD (Institut Européen d'Administration Des Affaires)
- The University of Bolton, representing The JISC
- Universiteit van Amsterdam
- Sofia University "St. Kliment Ohridski"
- SURF
- Synergetics



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# Basic Ideas Behind the Project:

- Competence
- Competence Development
- Infrastructure for Competence Development



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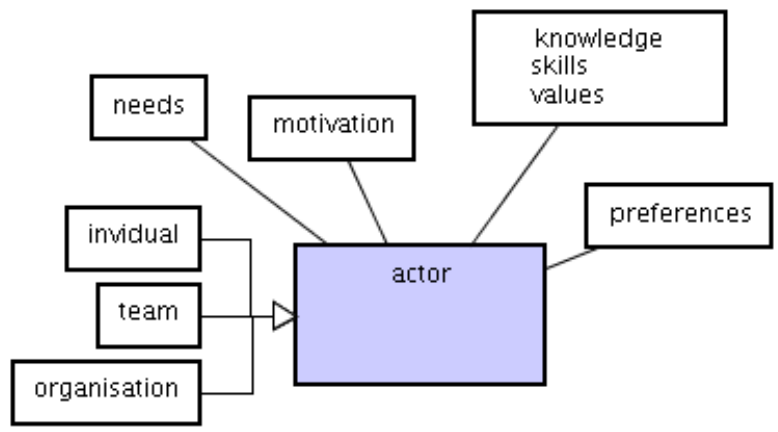
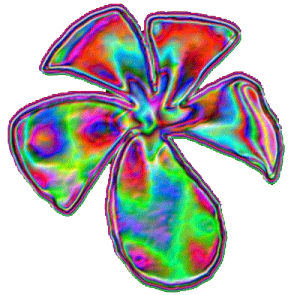
# Key role for 'competences'

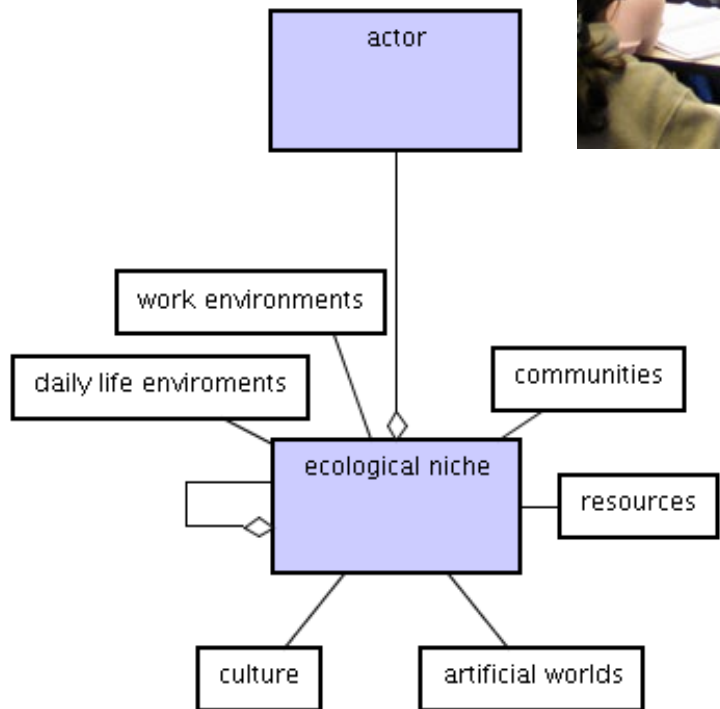
- The concept of competence can bridge the world of education, training, knowledge management, human resource management & informal learning
- Many definitions, problem for system development
- Difference:
  - Competence: Effective performance in a domain at different levels of proficiency
  - Competency: Skill (synonym)
- Initial definition of 'competence' and 'competence development' in the project (next slides...)

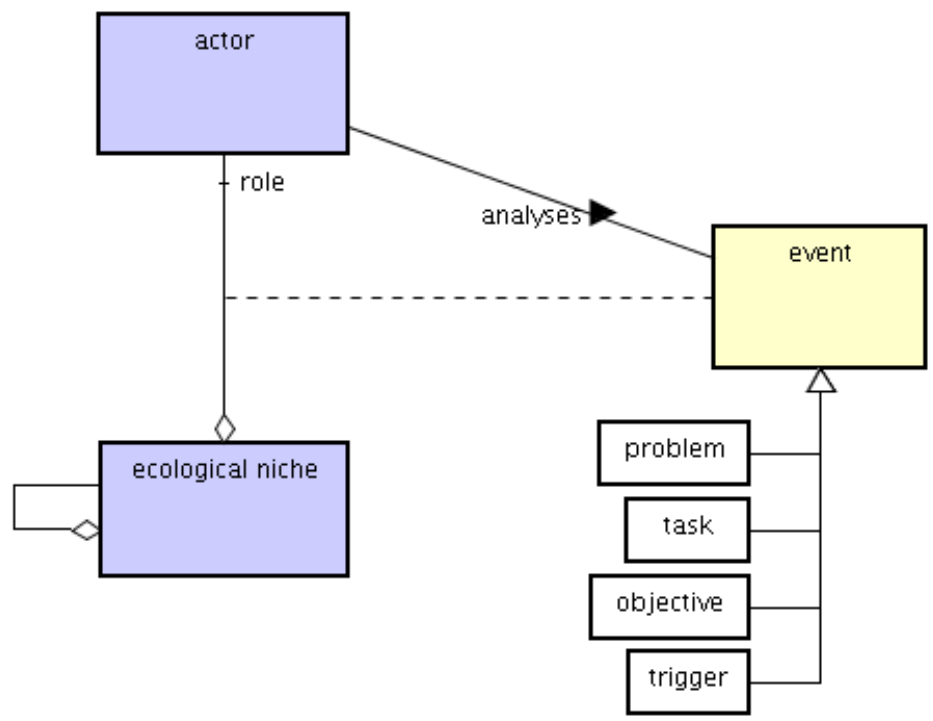
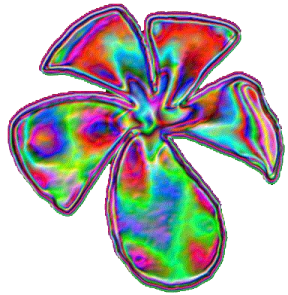


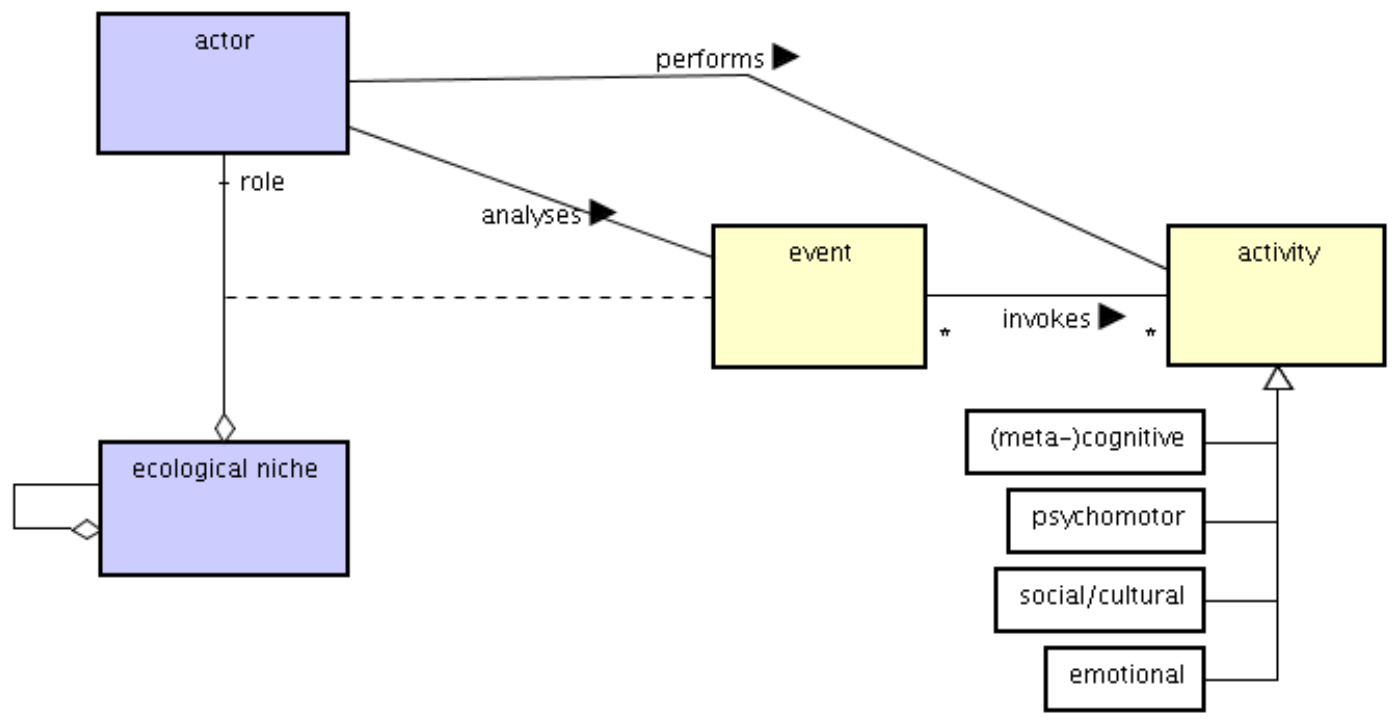
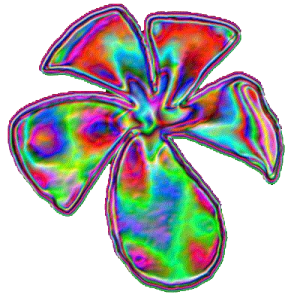
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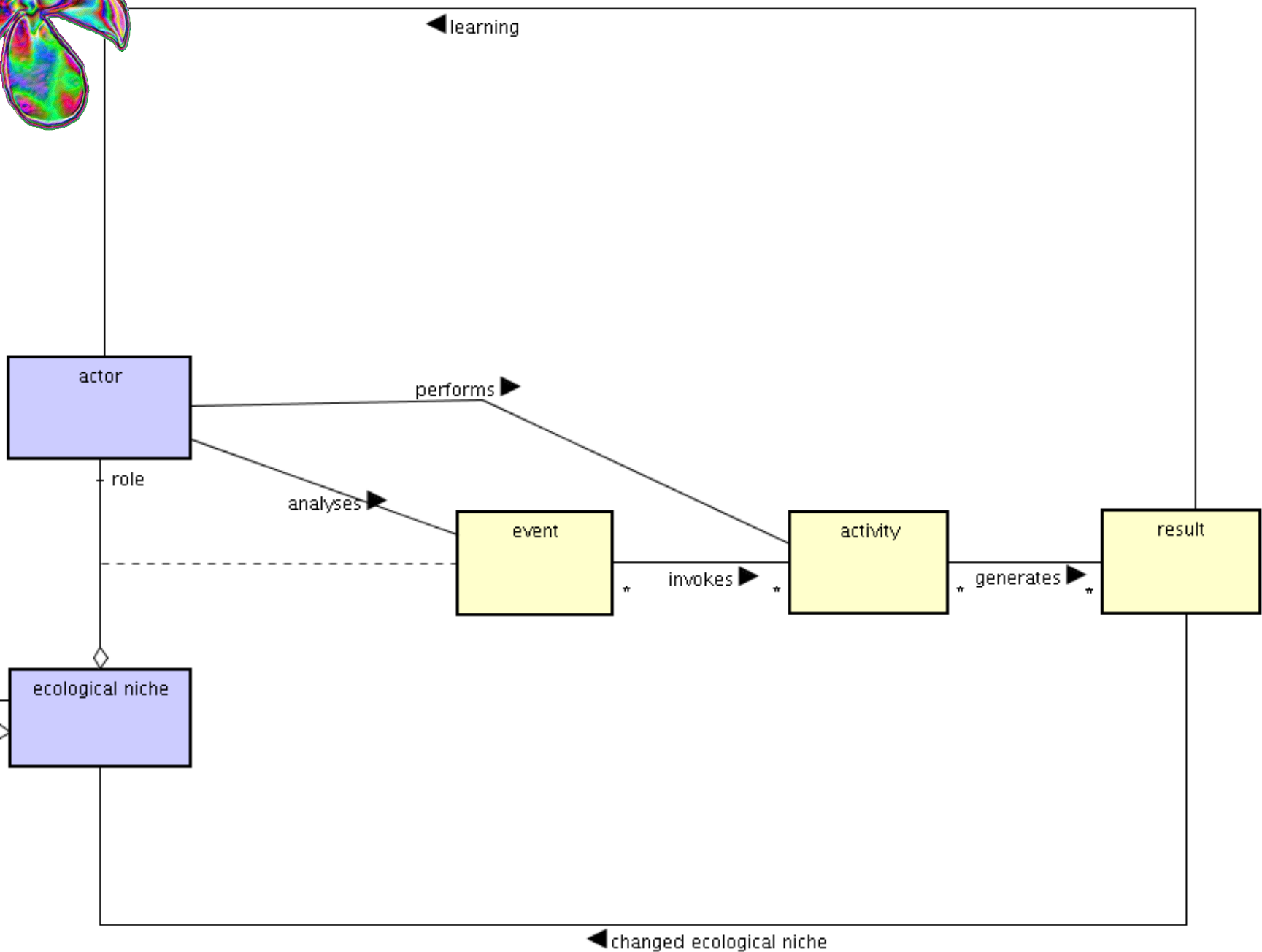
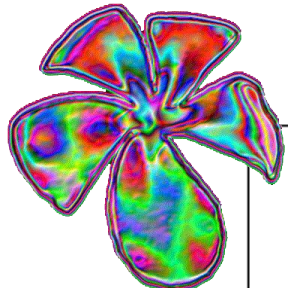
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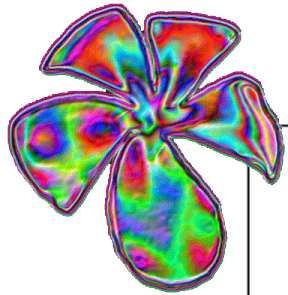




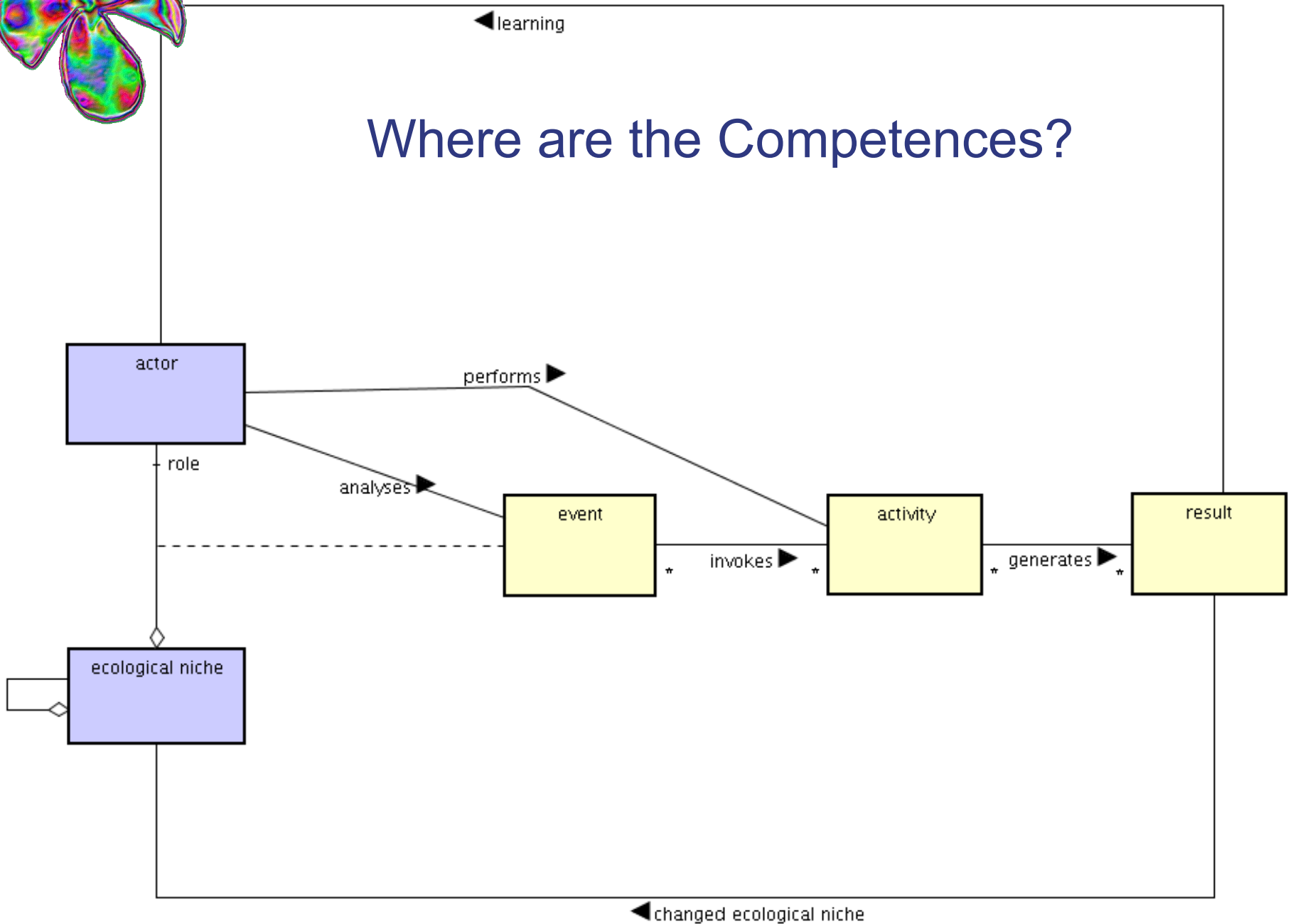


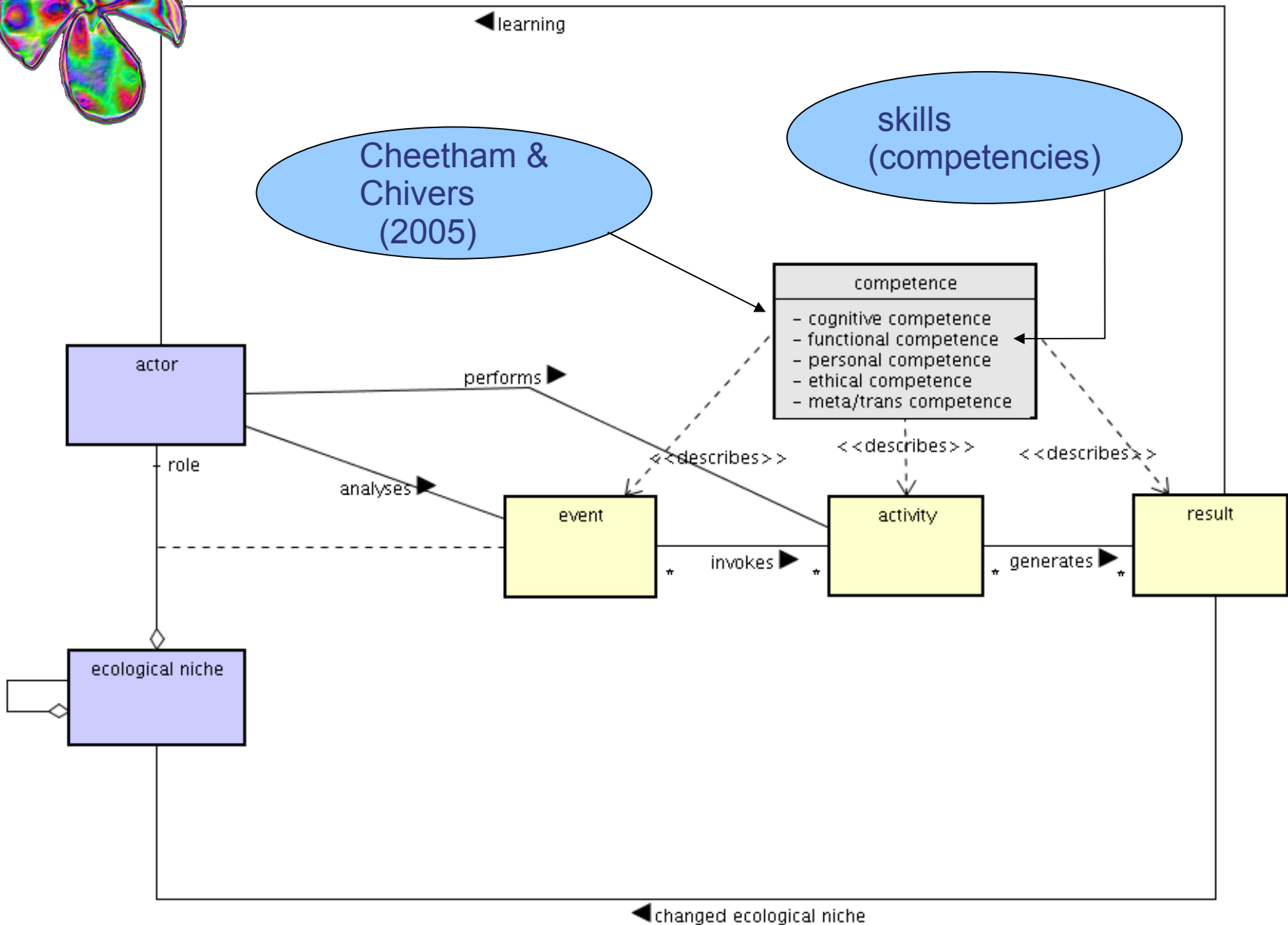
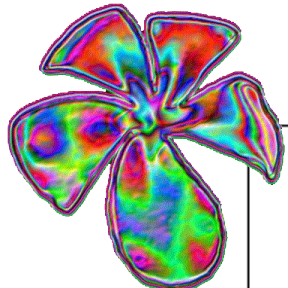




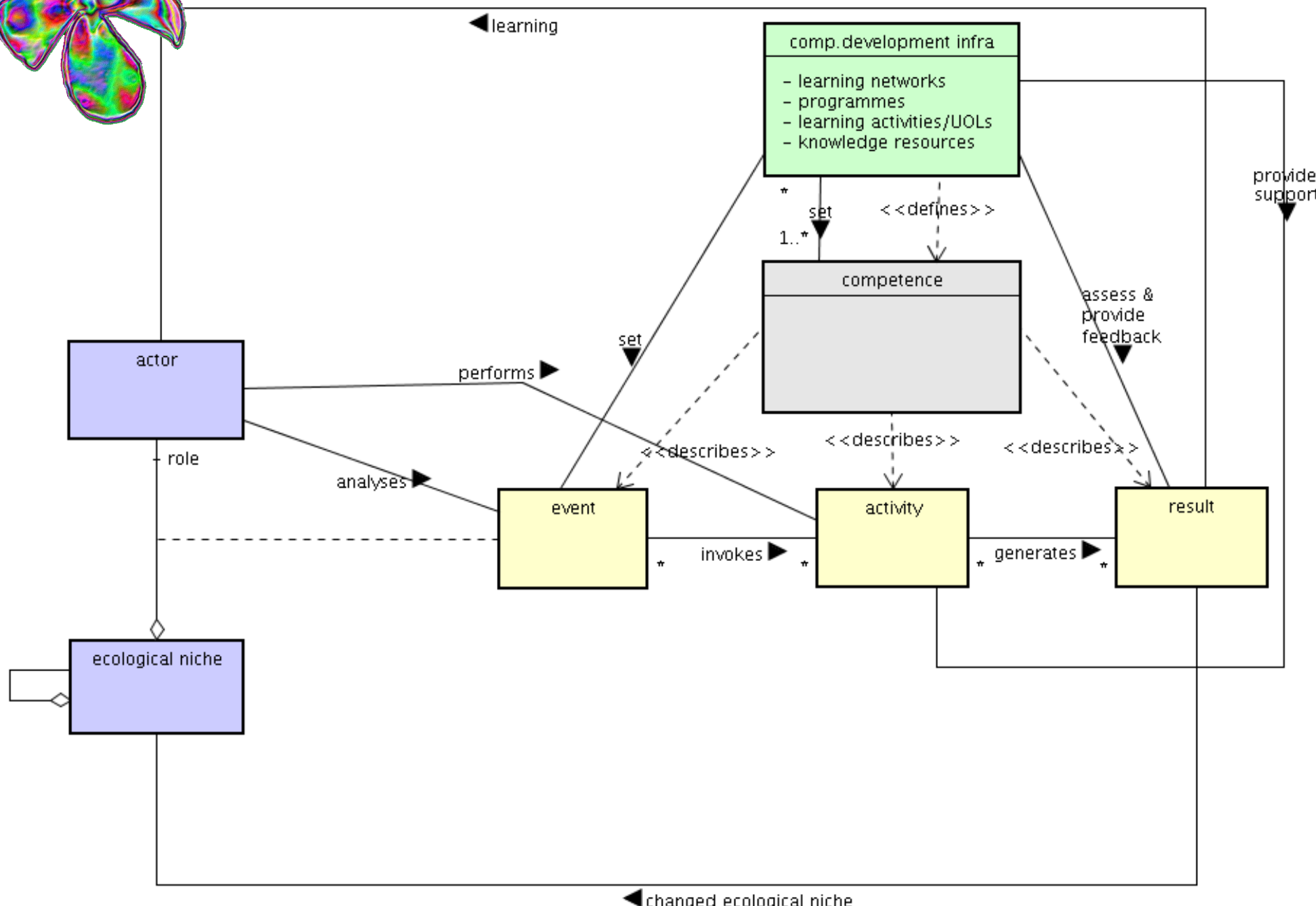
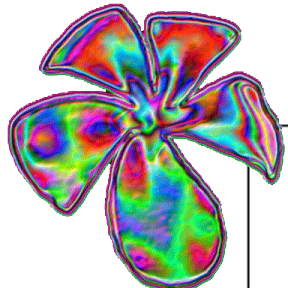


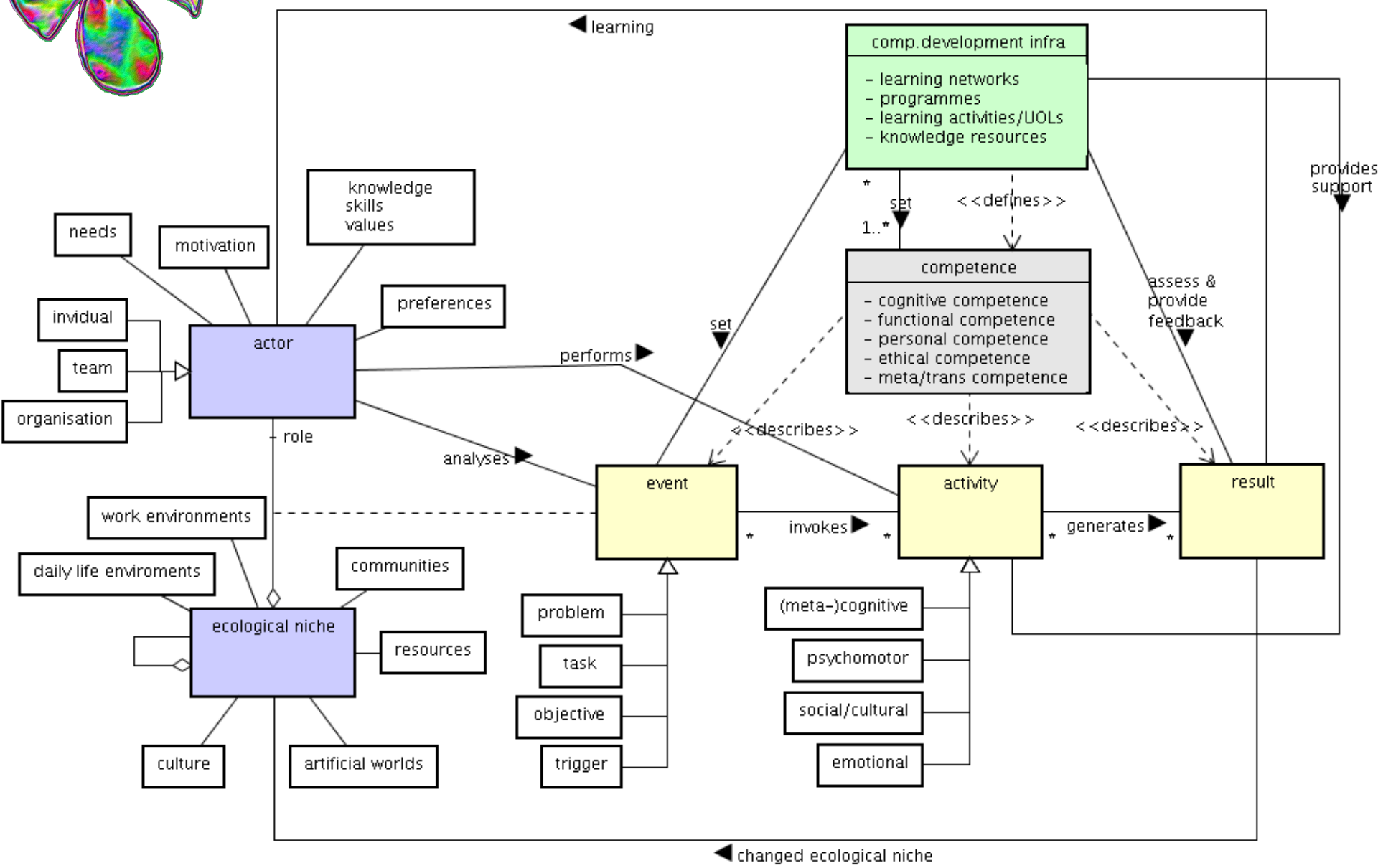
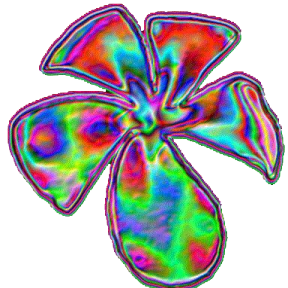
# Where are the Competences?













# Further elaboration of the Infrastructure for Competence Development...



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# Requirements for the infrastructure

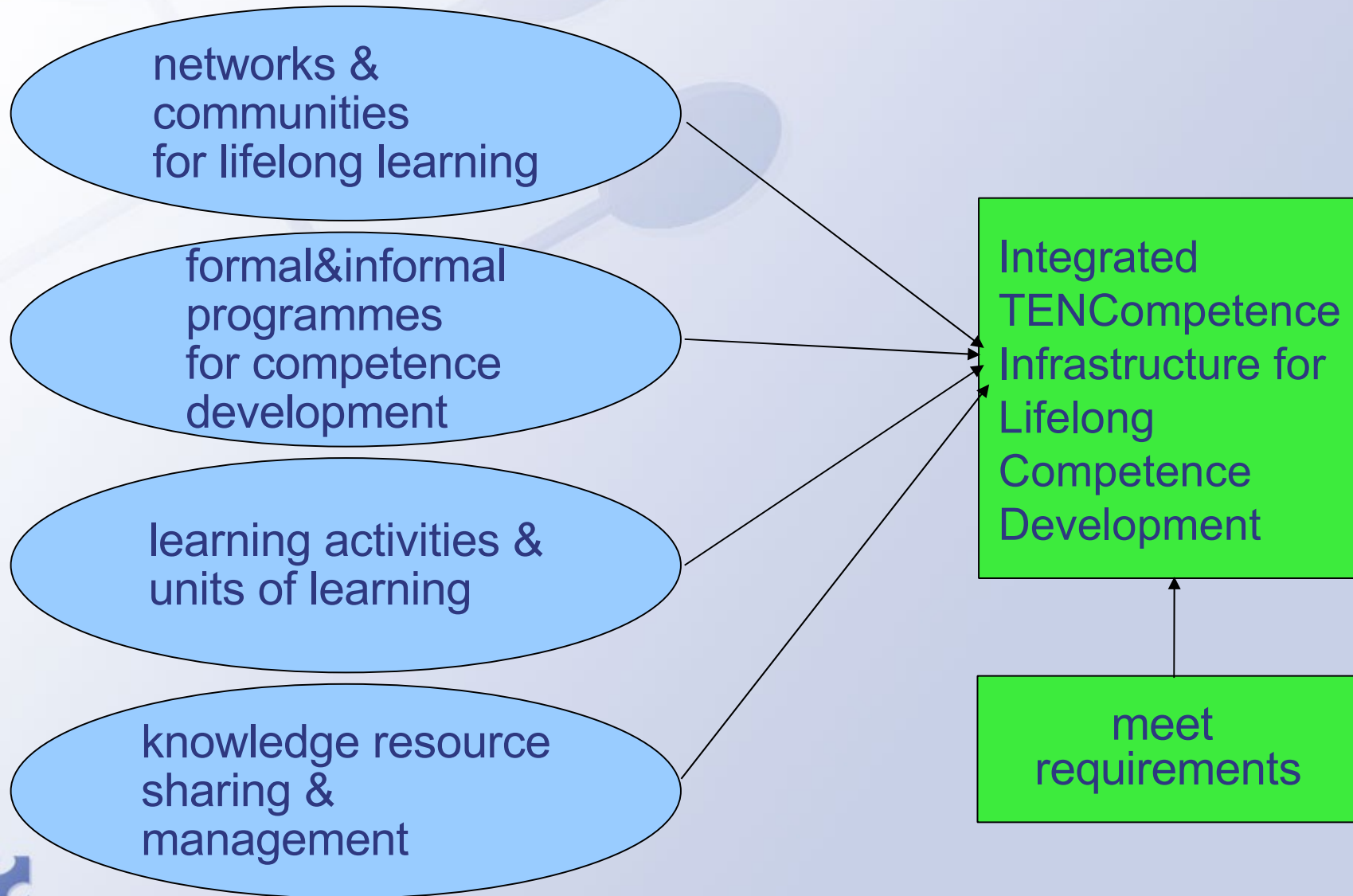
- Based on **new pedagogical & organisational models**
- Supports users to **find** adequate learning resources to develop their competence
- Support to facilitate the **pro-active sharing** of resources
- Support for competence **assessment**
- Support agents to **help users**
- Includes principles and policies of **self-organisation**
- **Integrate** isolated open source tools



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# Integration of 4 'worlds'



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# How will it work?

- One learning network per occupation/domain of expertise
- A competence framework for each learning network that specifies effective performance in the field for different proficiency levels
- Formal or Informal Competence Development Programmes (including dynamically created learning routes) that are aimed at the attainment of proficiency for one or more competences in the competence framework
- Learning activities or units of learning that are available/shared in the network and are the building blocks of the programmes
- Knowledge resources that are available/shared in the network and are used in the learning activities and units of learning



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# How will it work? <continued>

- Members of the learning network:
  - People in the profession (from very beginners to experts)
  - Suppliers of formal and informal programmes/courses
  - Suppliers of materials, tools, etc. needed in the profession
  - Employers and professional associations
- Functions to be performed by the members:
  - find & perform knowledge/learning activities/programmes
  - share & discuss knowledge/learning activities/programmes
  - support trainees in the profession
  - provide feedback on quality of programmes/courses
  - provide feedback on quality of tools from suppliers
  - define professional competences at different proficiency levels
- Facilitated by: Social Exchange Mechanisms; Support Agents

# Technologies

- Add & edit new knowledge/activities/programmes
- Search suitable knowledge/activities/programmes
- Exchange personal data
- Policy mechanisms to support social exchange
- Support agents for users in all their functions
- Use of open standards and service based architectures

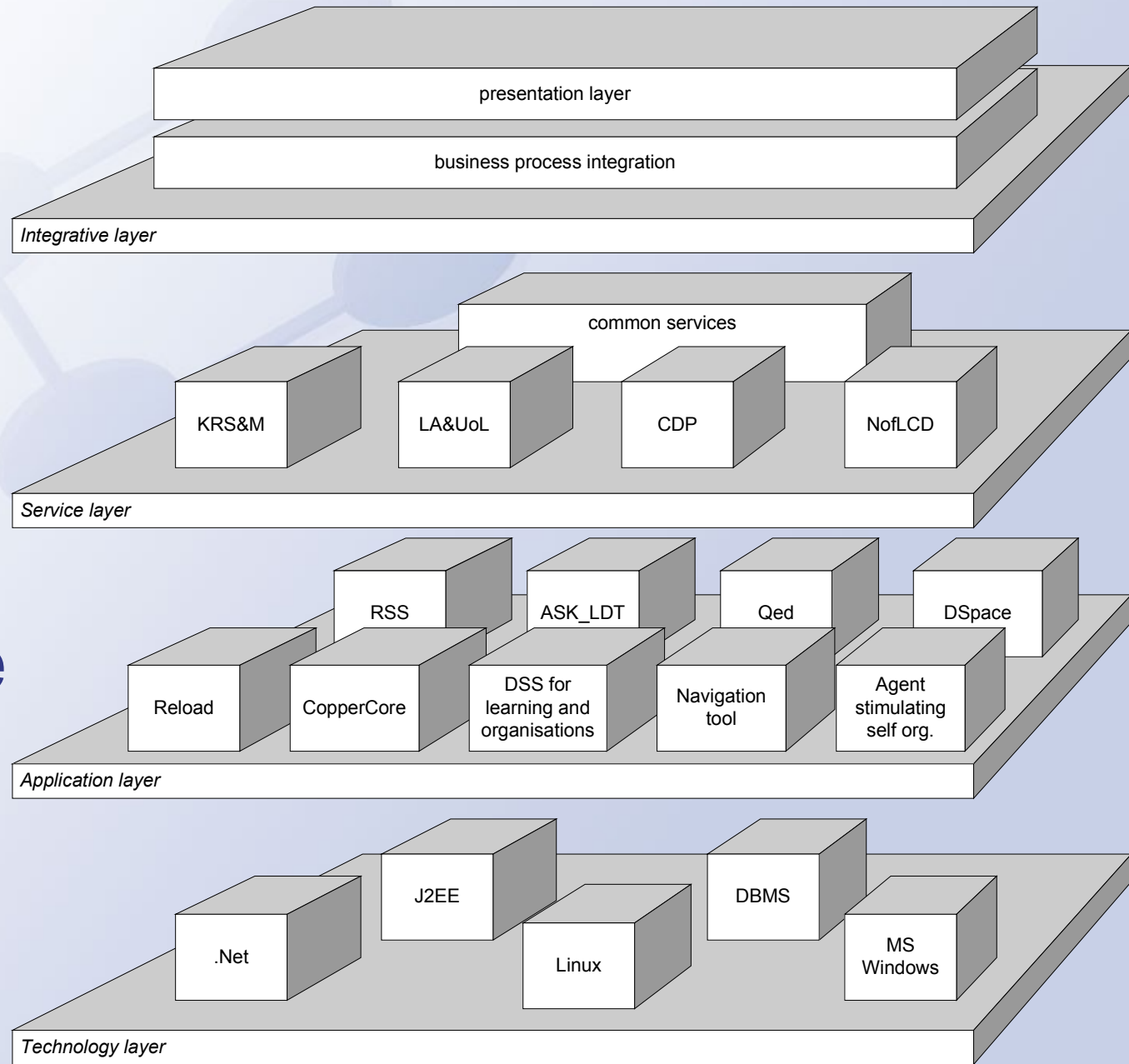


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# Service Oriented Architecture



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# To Summarize. What we will get is:

- New innovative **methods** to support lifelong competence development
- An integrated set of **open source software** to create, store, use and exchange:
  - knowledge resources,
  - learning activities, units of learning and
  - competence development programmes within learning networks for a profession/domain
- **Web services** that can be accessed and used by every person, team and organisation in Europe to develop their competences
- New possibilities to **provide commercial and non-commercial services** using this infrastructure



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# Associated Partners

- Want to input use cases?
- Want to test early versions of the systems?
- Want to set-up pilots in collaboration with project?
- Want to deliver commercial or non-commercial services using the TENCompetence infra?
- You are working on a related project and want to establish a formal link with TENCompetence
- => please contact us (next page)



# References

- [www.tencompetence.org](http://www.tencompetence.org) (project)
- email: [ten.competence@ou.nl](mailto:ten.competence@ou.nl)  
[rob.koper@ou.nl](mailto:rob.koper@ou.nl)
- Download these slides at:

<http://hdl.handle.net/1820/504>

Thanks!

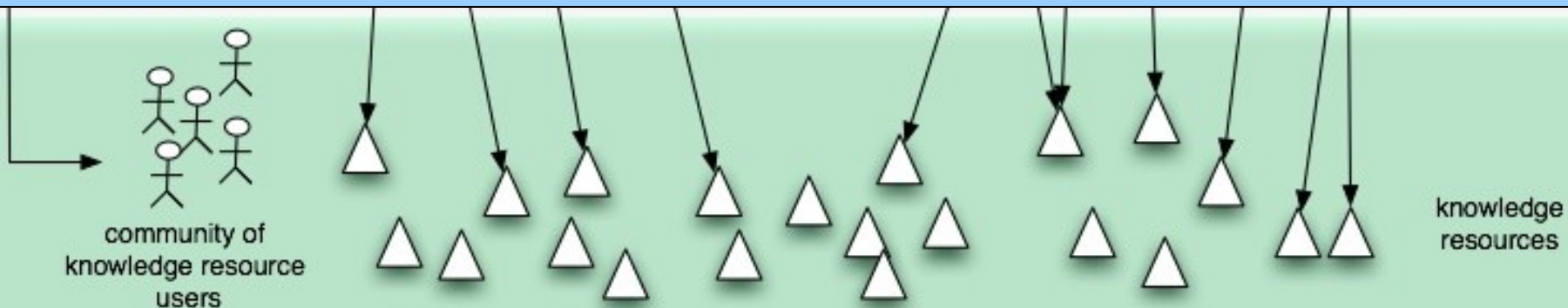


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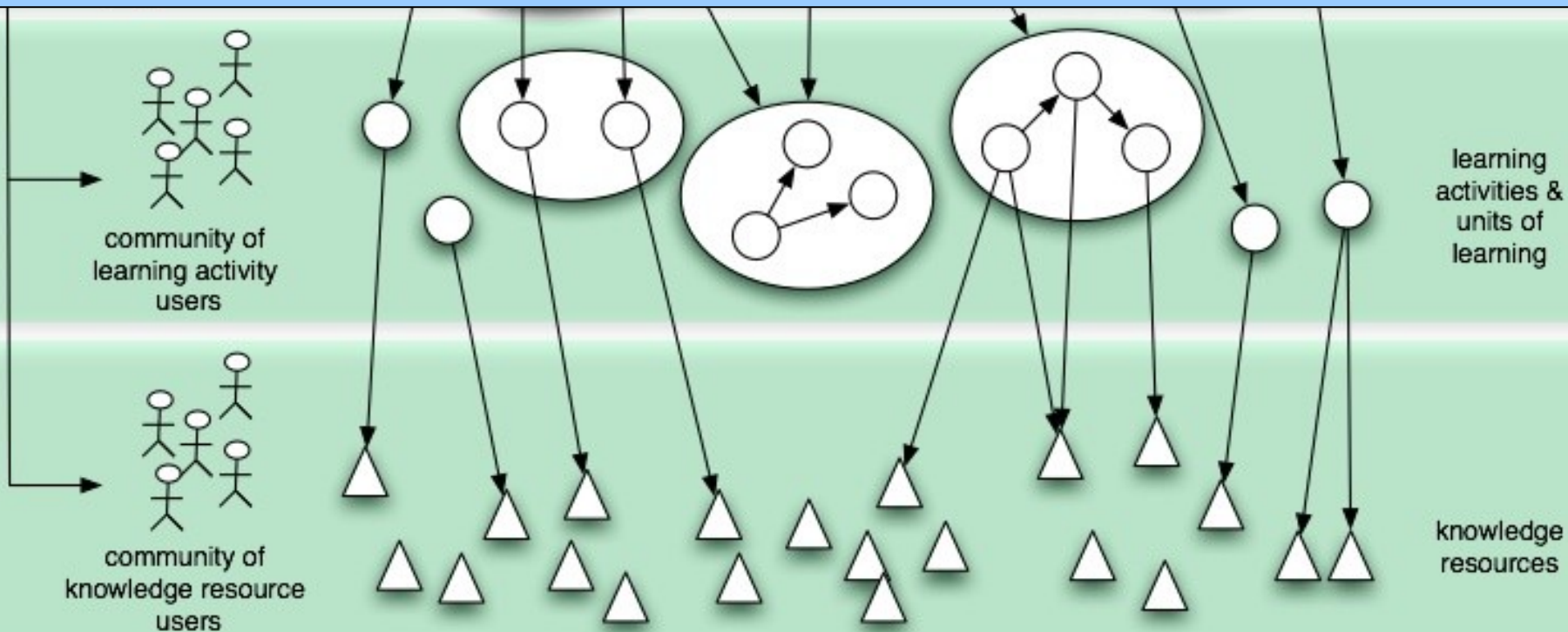
# Relationship Between the 4 Worlds

## 1. Knowledge Resource Sharing & Management



# Relationship Between the 4 Worlds

## 2. Learning Activities & Units of Learning



# Relationship Between the 4 Worlds

## 3. Competence Development Programmes

