



# **SICONA – an instrument for nature-based solutions ?**

## **Case Study I : Luxembourg**



# What is SICONA?

## History

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### Idea

- Association of communes in order to implement a joint nature conservation policy.
- To organize the municipal nature conservation in the most efficient and cost-efficient way by means of a specialized maintenance-team and a communal machine park.
- To maintain and develop the native flora and fauna in their habitats as a local contribution to the protection of the globally threatened biodiversity.

### Implementation

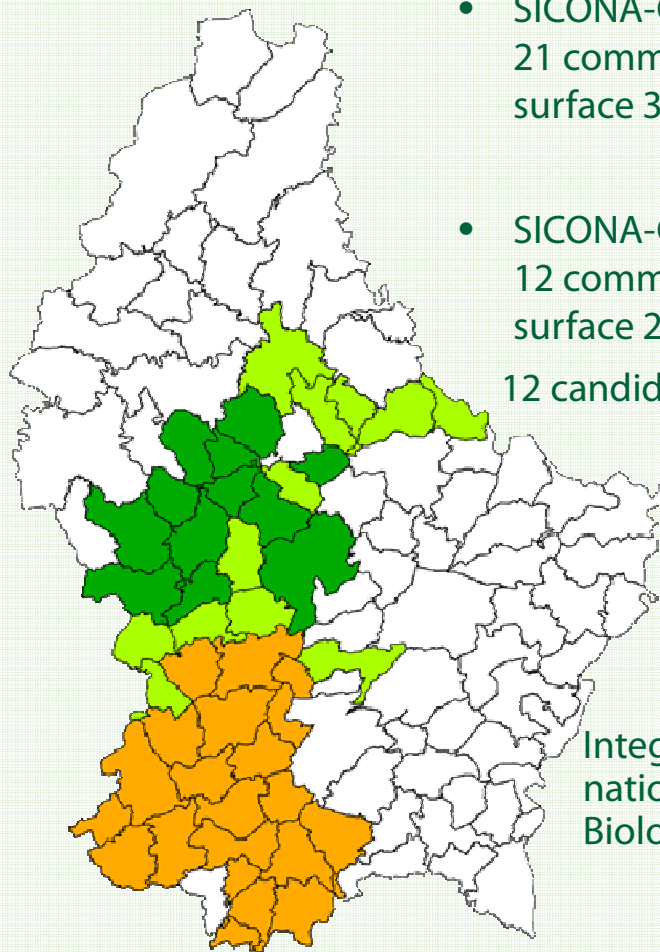
- 1987: Niki Bettendorf, Mayor of the municipality of Bertrange, invites his regional colleagues, in order to discuss the foundation of an intercommunal syndicate for the conservation of nature.
- 1989: The statutes of SICONA-Ouest with 10 member-communes are published.
- 1990: SICONA starts its activities with Niki Bettendorf as president.
- Today SICONA-Ouest has 21 members; the sister-syndicate SICONA-Centre (founded in 2000) 12 members. Together they cover almost ¼ of the territory of the country.





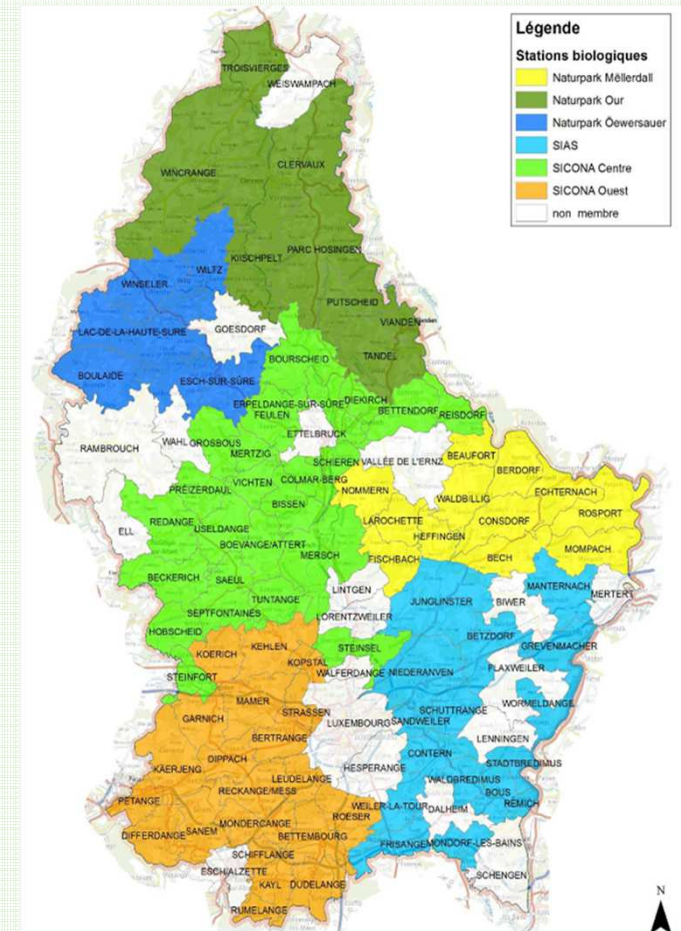
# What is SICONA?

## Geographical situation



- SICONA-Ouest:  
21 communes,  
surface 374 km<sup>2</sup>
- SICONA-Centre:  
12 communes,  
surface 262 km<sup>2</sup>  
12 candidate communes

Integrated in a  
national network of  
Biological Stations



# What is SICONA?

## The missions today



- Conservation of biodiversity and landscapes
- Realisation of practical nature conservation work in the member-municipalities
- Support of the national nature conservation policy in accordance with the principle of subsidiarity
- Consultation and support of the member-communes on the matters of nature and landscape-protection
- Public awareness-raising on the issue of nature conservation





# What is SICONA?

## Cooperation

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### *Cooperation with the municipalities*

- *Annual elaboration of a specific work programme with the college of aldermen / municipal council*
- *Collaboration with the environmental committees (advisory commissions)*
- *Pre-financing of all projects by the municipalities*

### *Cooperation with the state*

- *Convention with the state for the implementation of the National Plan for Nature Protection on a regional level*
- *Regional implementation of contractual conservation management agreements (Biodiversity programmes)*
- *50% subsidization of the costs of practical conservation work*

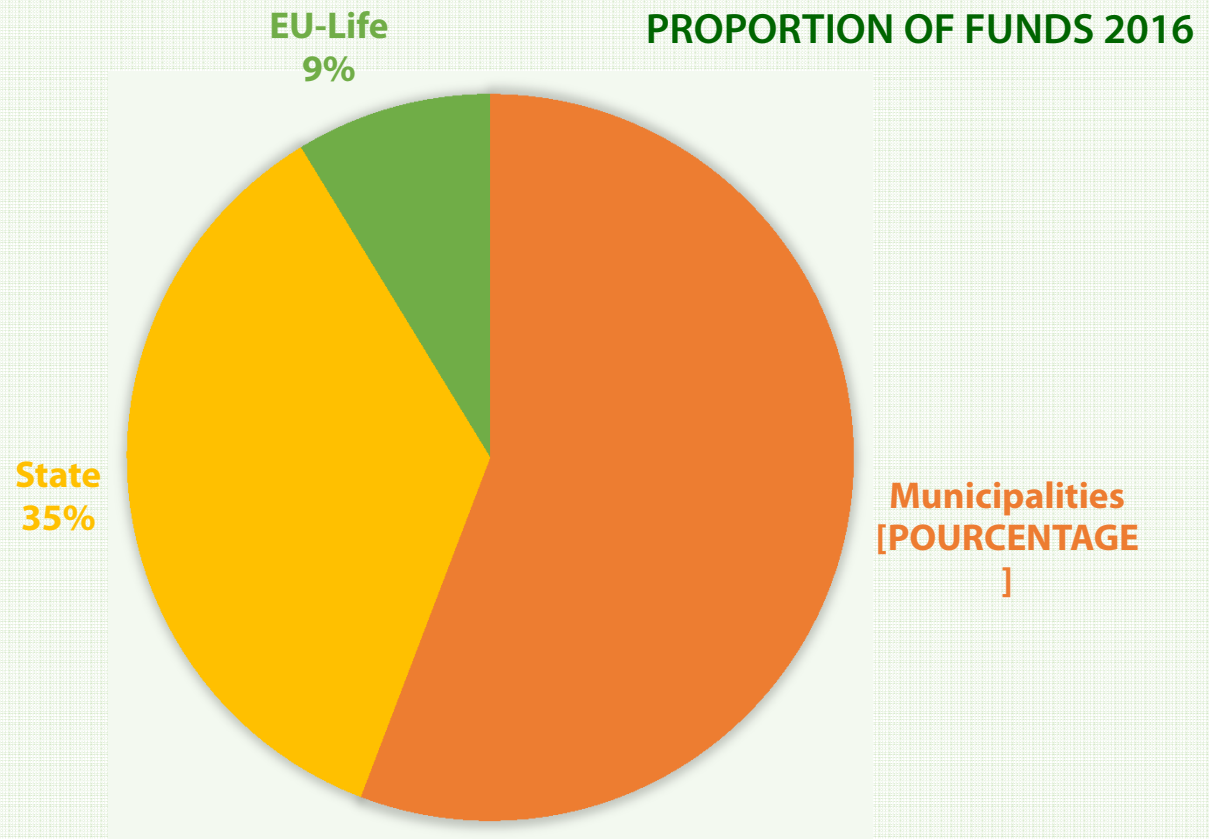
### *Cooperation with the EU*

- *Life-Projects*



# What is SICONA?

## Financial Framework

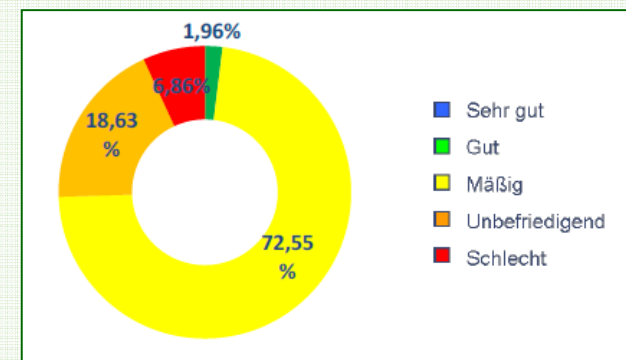


Total amount 2016: 4 905 000 €; municipal part 2 747 000 €

# Projects Flood management

## Water Framework Directive

- Only 2% of the Luxembourgish streams are in a good state
- Distribution of tasks between state and municipalities depending on size of streams
- NATURA 2000 Sites priority for SICONA
- **ACTION: Restoration of 2-5 km of small rivers**



Valley of the "Närdenerbaach" before and after restoration of the stream



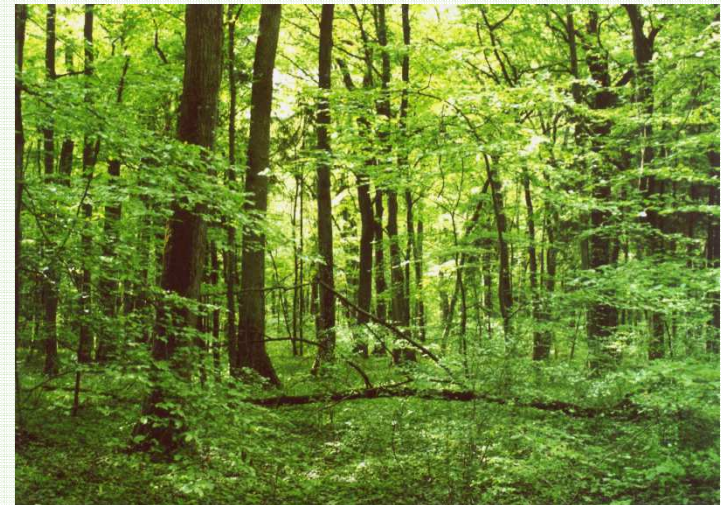


# Projects Natural Forests

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## *Natural Forest Reserves*

- *Municipalities own large areas of forest in Luxembourg*
- *National target: 5% of the forest as natural forest reserves*
- *Asperulo-fagetum beech forests (9130) and oak-hornbeam forests (9160)*
- **Action : 2 reserves in SICONA region:**
  - **Beetebuerger Bësch in Bettembourg (mainly beech, 237 ha)**
  - **Ënneschte Bësch in Bertrange (mainly oak and hornbeam, 90 ha)**





# Projects Nature and Recreation

## Nature for people

- Creation of attractive landscapes for people along new or existing walking trails (ex. ponds for great crested newt, orchards for little owl...)
- Information boards about Natura 2000, habitats, flora & fauna and landscape history along such trails
- **Action: Projects combining recreation and nature protection**





# Projects Landscape protection

## Structuring Landscapes

- Target: Introducing landscape structures in cleared landscapes
- Enhance coherence of NATURA 2000-network
- Hedges, tree rows, fallow strips, riparian strips
- **Action: leasing of the strips from farmers, offer to build and maintain fences (fence maintenance = important financial issue for farmers)**





# Projects Restoration of meadows and heaths

## Restoration of grassland

Lowland hay meadows (6510), Molinia meadows (6410),  
European dry heath (4030)

- Testing and development of several restoration methods for meadows and heathland
- Acquisition of special machinery (seedharvester)
- **Action: Restoration of 70 ha grasslands in 10 years**



Restoration through application of  
freshly mown plant material

Harvesting with seedharvester

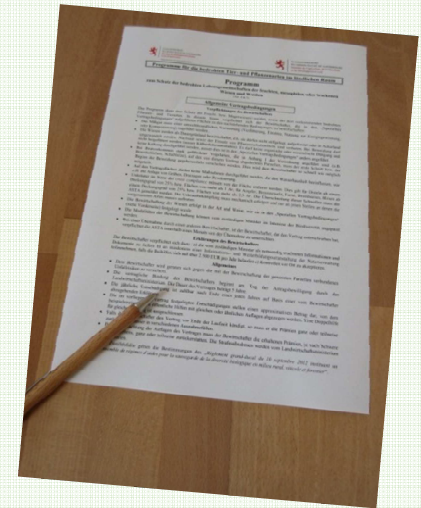




# Projects Contractual nature conservation



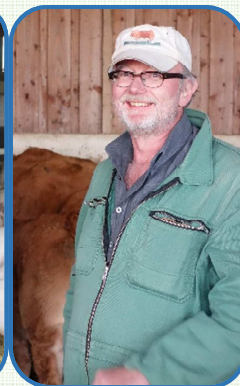
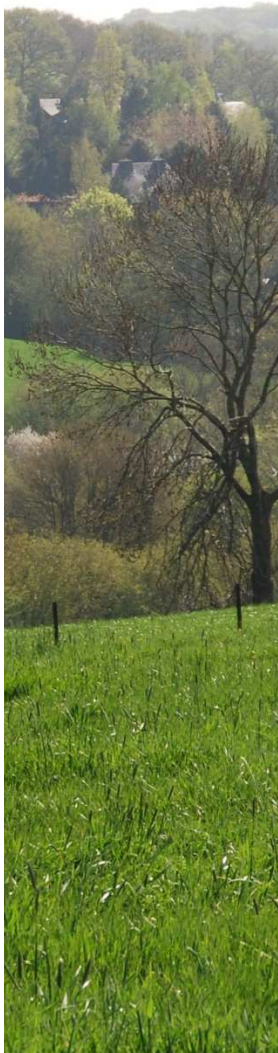
- *National Biodiversity Programmes since 1995*
- *Compensation for farmers' services in nature conservation, contracts on a voluntary basis*
- *Targeting biotope areas and NATURA 2000 sites*
- *Proactive negotiation of contracts by SICONA, including administrative, agronomic and biological work*
- *Mainly grassland conservation contracts*
- **Action: Nationwide 5 000 ha → SICONA 1 200 ha**





# Natur genéissen Regional marketing project

- *Economic incentive for farmers for environmentally sound land management inside and outside NATURA 2000 sites*
- *Strict criteria for participating farmers (environment, nature protection)*
- **Action: Direct link between 12 producers and many young consumers**





# Natur genéissen Regional marketing project

- *Healthy and sustainable diet in the childcare centres of the member communities*
- **Action: Catalogue of obligations for kitchen staff (purchase of high percentage of “Natur genéissen”-products and regional products in general)**
- **Training of cooks, educational staff and farmers**





# Projects *Aktioun Päiperlek: Protect butterflies*

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## Flowers for butterflies, bees and other insects

- Action: Installation of flower-meadows and planting of herbaceous borders for pollinators in public areas, while involving the local gardeners
- Offering sets of “butterfly perennials” to private people

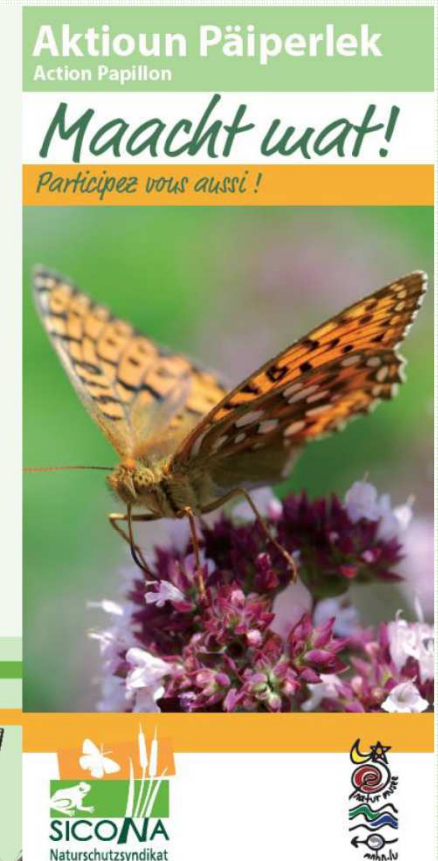
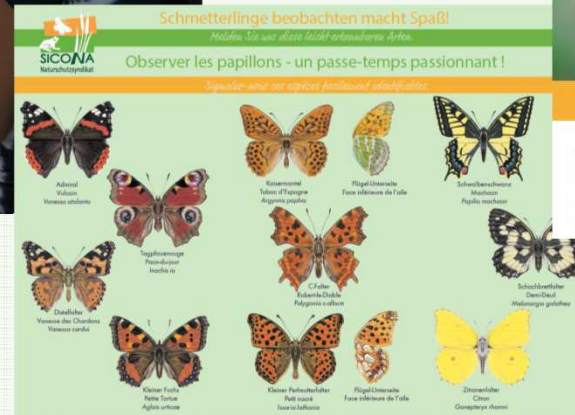




# Projects *Aktioun Päiperlek: Protect butterflies*

## Citizen Science

- *Using butterflies as likable umbrella species*
- **Action: Raising scientific interest: determination courses**
- **People can introduce observations in a public database**





# Projects Educational Work

- **Action: Outdoor-activities for children**  
(free afternoons and school activities – natural experience and education for sustainable development; around 500 activities in 33 member municipalities per year)
- **Educational activities in several school gardens**
- **JuNa: Educational project for teenagers**
- **Nature for People – People for Nature**  
annual calendar of events with excursions and workshops for adults



# Conclusions

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- Nature based solutions (for example in flood protection) used in SICONA municipalities are less expensive than technical solutions but need more space.
  - The wellbeing and health of the population is an argument for local politicians to implement an environmentally friendly policy.
  - Involving the public in nature protection increases the political motivation for an increased nature protection.
  - Regional Marketing is a fantastic instrument to bring producers and consumers together.
  - Economic arguments are the best – farmers earning money by nature protection projects.
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- Municipalities have many opportunities to use nature based solutions.
  - SICONA and its members have realized lots of nature and landscape conservation projects since 1990.
  - Despite this efforts the situation of nature and biodiversity in Luxembourg is worse than 25 years ago, due to severe pressure by urbanization and the effects of the Common Agricultural Policy.





**Thank you  
for your attention**