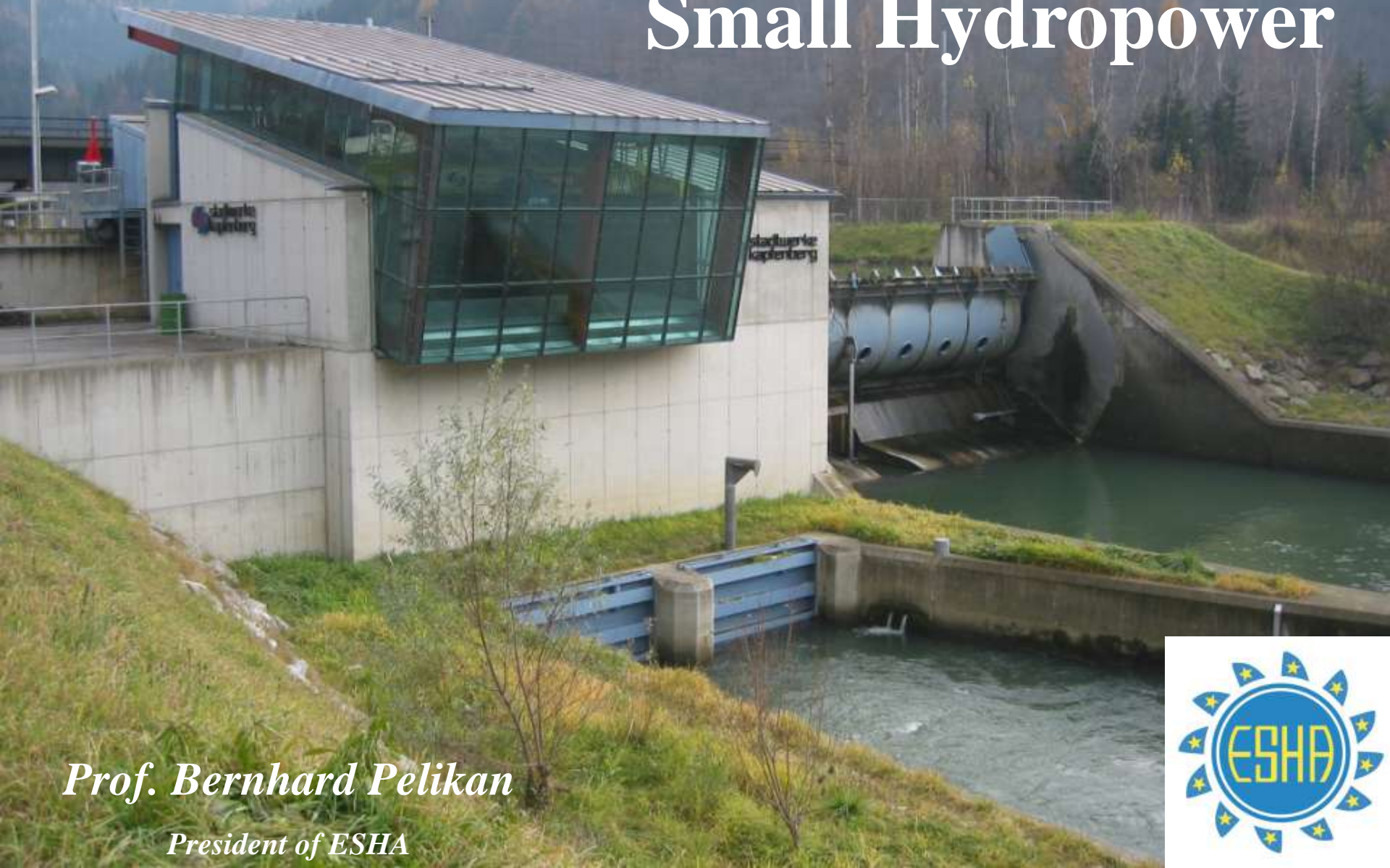


Renewable energy policy workshop
Brussels, 30th January 2008

Small Hydropower



Prof. Bernhard Pelikan

President of ESHA

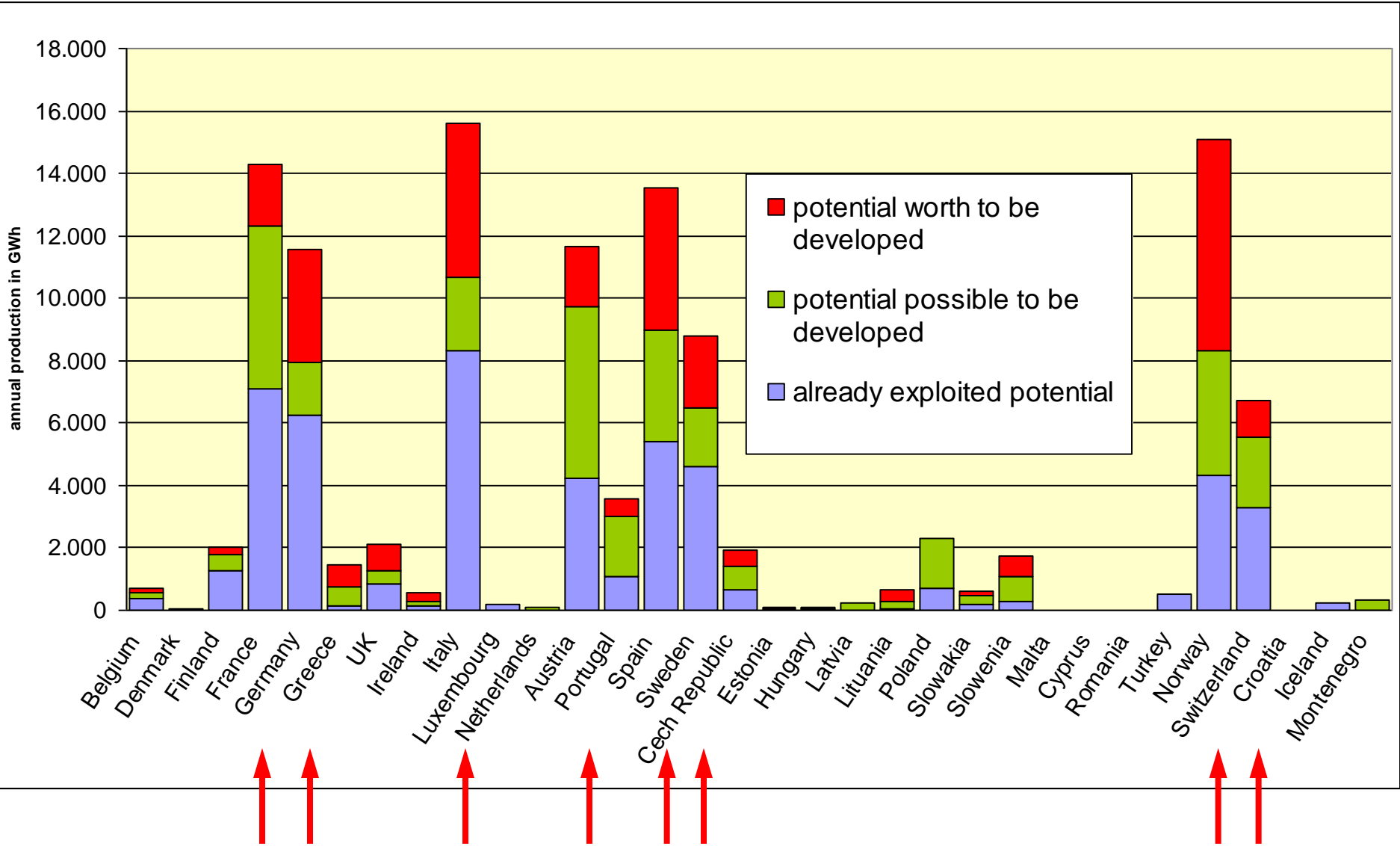


ESHA



- Non-profit Organisation, founded 1989
- Headquarters in Renewable Energy House in Brussels
- Members in most EU countries and worldwide
 - National SHP associations
 - SHP industry (manufacturers, etc.)
 - Scientific community
 - Individual members
- ESHA is founding member of EREC- the European Renewable Energy Council

SHP potential in Europe



SHP potential in Europe



| | | MW | GWh/a | |
|------------------|--|---------------|---------------|--------|
| Potential | already exploited | 12.587 | 50.279 | |
| | potential worth to be developed | modernisation | 17% 2.921 | 10.952 |
| | | new plants | 83% 14.268 | 55.525 |
| | potential possible to be developed | modernisation | 1.382 | 5.636 |
| | | new plants | 6.524 | 29.127 |
| | total potential worth to be developed | 29.776 | 116.756 | |
| | already exploited share | 42% | | |
| | total potential possible to be exploited | 20.493 | 85.042 | |
| | already exploited share | 61% | | |

SHP position towards RE directive



- There is huge SHP potential in Europe to be exploited
- The RE directive will support the exploitation politically
- It states clear obligations concerning the authorisation (Simplification, harmonisation, fast track, cost relation, transparency)
- The directive supports expressively the RE access to the grid
- There is no comment on how to calculate the value of RE
- The following points will decide upon the final result:
 - ✓ Implementation into national law
 - ✓ National action plans
 - ✓ Control and reporting
 - ✓ Consequences and penalties



Normalisation rule for accounting for electricity generated from hydropower

$$Q_{N(norm)} = C_N * \left[\sum_{i=N-14}^N \frac{Q_i}{C_i} \right] / 15$$

There are two features typically for large hydro:

- high degree of exploitation
- existence of storage plants

Putting small hydro and large hydro into one pot will significantly underestimate the contribution of SHP. A separate calculation by a limit of 10 MW will solve the problem.



Hidroenergija 2008 "On the Crossroads"



Bled, Slovenia, 11-13 June 2008

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