



**The International Energy Agency
Solar Heating and Cooling Programme**

TASK 24: SOLAR PROCUREMENT

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Solar Procurement



- **Joint Efforts for 10,000 Systems**
- **CO₂ Reduction** – 5,000 tonnes per year
- **Solar Market Growth**
 - market growth about 20–25% per year
 - 10-fold increase in the Solar industry expected according to "Sun in Action" study
- **Green Profile**

Participating Countries



Belgium

Canada

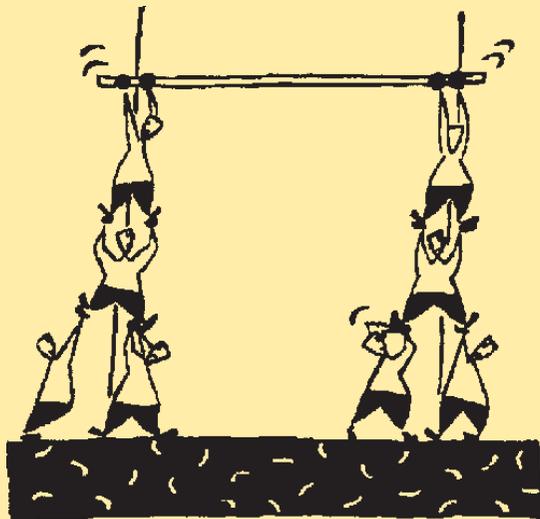
Denmark

The Netherlands

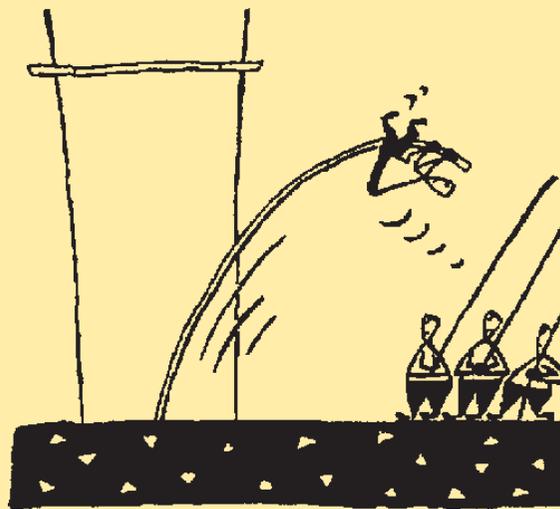
Sweden

Switzerland

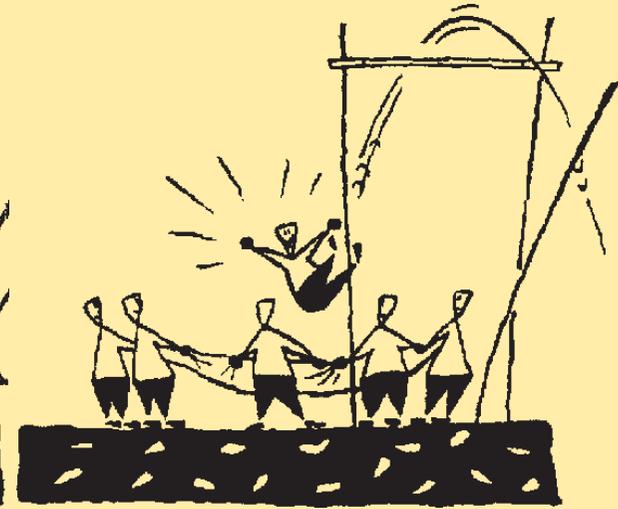
Technology procurement



1 Purchasers and buyers collaborating in innovative buyer groups can create new criteria for energy efficiency.



2 Common criteria for environmental performance allows producers to compete for orders and ranking.



3 For producers, strong buyer groups means lower investment risks.



**Teleswitching
equipment**



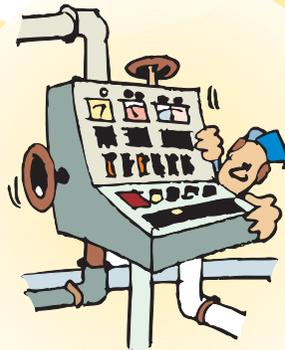
**The "Golden
Carrot"**



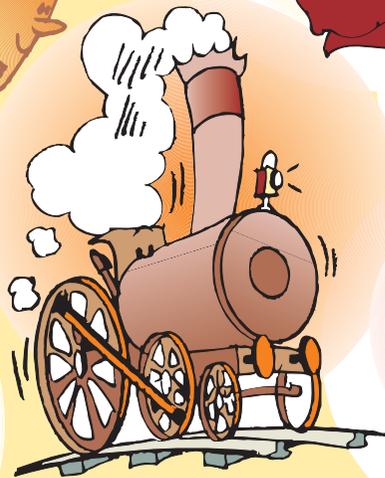
Chronometer



**Wind power
station**



Automatic control technology

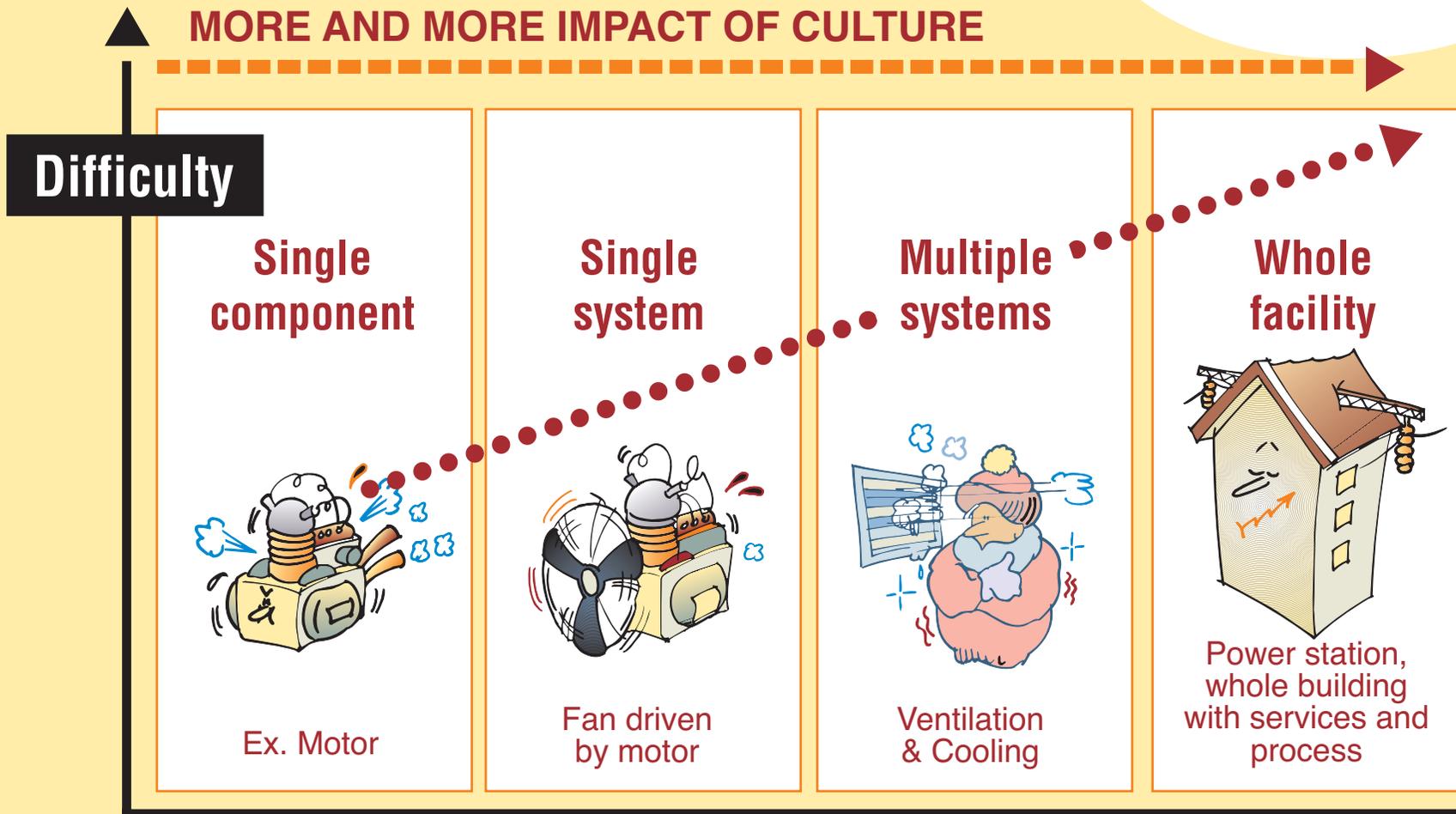


Steam engine

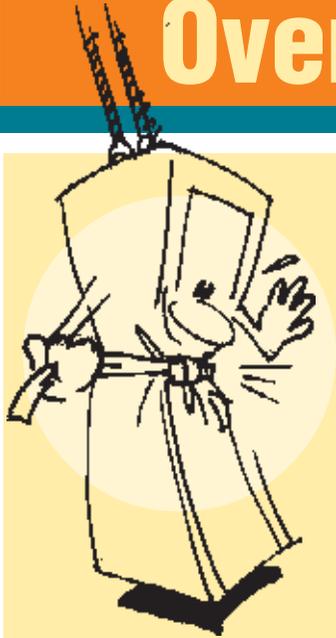


Wheelchair

Product Complexity "Ladder"

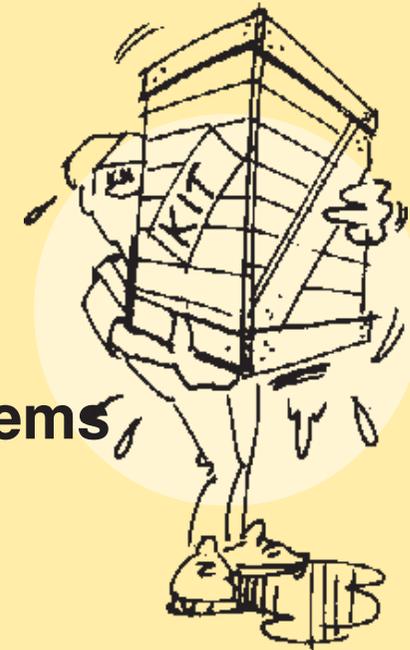
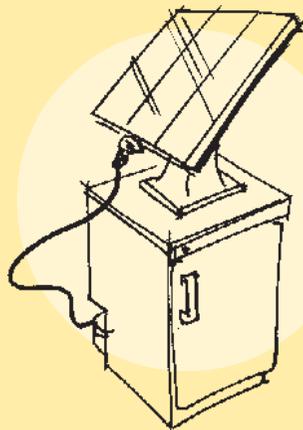


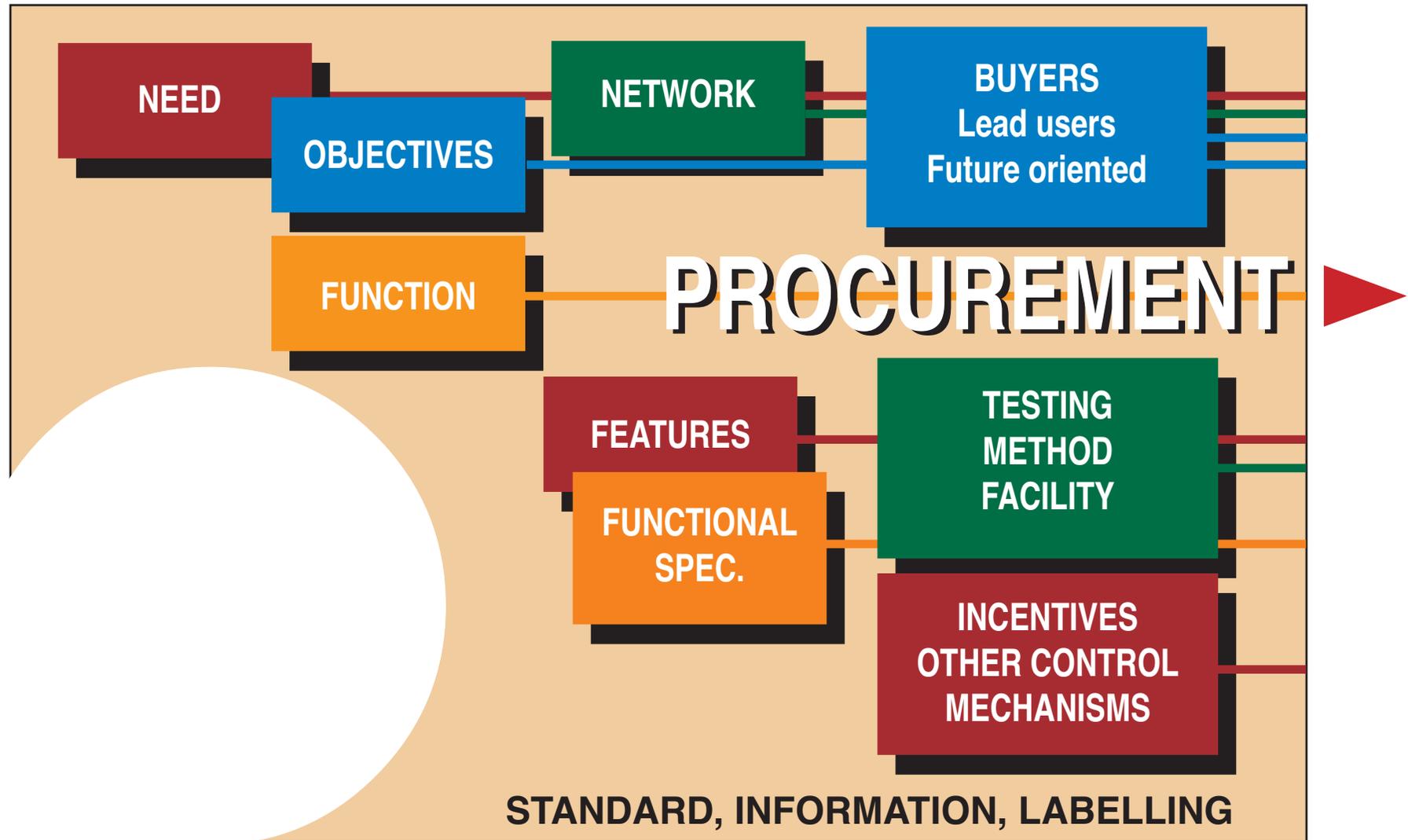
Overview of results



Project area/Result

- Lifts for existing buildings
Cost reduction by 48%
- Refurbishment of bathrooms
Reduc. from weeks to 2 days
- Energy-efficient products/systems
Energy reduction 30–50%





Technology Procurements



Definition:

”Technology Procurement refers to a process, through which a commodity, service or system is procured, and for which development of new technical solutions is essential in order to meet the requirements of the buyer. The technical development work, being part of the process, may concern application of advanced technology, but also minor stages of development as well as product modifications. The development work may concern the product, the system or the production process, for which it is developed.”

From the Swedish Ministry of Industry (Ds I 1982:4)

Solar Procurement

TASK 24



TASK OBJECTIVES

To create a sustainable, enlarged market for active solar water heating systems (mainly domestic systems)

TO BE FULFILLED THROUGH

- Major cost and price reductions for all cost elements, including marketing and installation
- Performance improvements
- Joint national and international purchasing

Procurement & Marketing

SUBTASK A



OBJECTIVES:

- To raise general interest in active solar thermal solutions
- To form buyer groups to purchase state-of-the-art and innovative systems



TWO ROUNDS:

- First Round with small projects and low degree of international collaboration
- Second Round with larger projects and higher degree of collaboration

Subtask A Lead Country: The Netherlands

Creation of Tools

SUBTASK B



OBJECTIVES:

- To collect, analyse and summarise experience
- To create tools to facilitate creation of buyer groups and realisation of projects and procurements. Tools to be included in a manual "Book of Tools"
- To define a process for prototype testing and evaluation using existing methods



Subtask B Lead Country: Denmark

Overview of results



- **Procurements initiated in all countries**
- **Buyer groups established in most countries**
- **Different facilitating measures developed as**
 - handbook of buyer groups
 - internet tools
 - testing methods developed
- **Smaller procurements finalised**
- **Major cost reductions result of Task 24 work**
- **20–40% reduction of total cost in including installation**

Procurement & Marketing

SUBTASK A



BELGIUM

- Has joined Task 24 recently
- 20–30 systems being installed
- Very ambitious programs
- **Brussels Solar Water Heater Promotion**
 - Campaign for medium size installations
 - Call for proposals until Sept. 2002
- **Walloon region for both small and larger systems**
 - Buyer groups being prepared
- **Preparation for "VLAZON" project in the Flemish Region**



Procurement & Marketing

SUBTASK A



CANADA

- **First focused on projects with utility partners in Ontario**
- **TEAM Advanced Low Flow Solar Water Heater project**
 - Recently started
 - Plan for 10,000 systems in the following years
- **Goal**
 - Cost reduction to 2,000 Canadian dollars
 - 1,000 systems installed by 2004



Procurement & Marketing

SUBTASK A



DENMARK

- **Sunshine over Thy and Mors campaigns**
30 systems
- **KFS-Houses will offer solar systems, 50 houses per year**
- **Internet: www.soltilbud.dk**
 - Call for tenders for three categories
 - Four competitions, 12 groups submitted tenders
 - 20% price reduction to 1600 Euro
 - Installers also involved, offering fixed installation prices for 4 different house types
- **New Danish government reducing renewable energy activities**



Procurement & Marketing

SUBTASK A



THE NETHERLANDS



Domestic systems for existing buildings:

- "Solhas", organising housing associations
 - Netherlands and 9 other European countries

Domestic systems for new houses:

- Essent Supply Region, 1,500 systems contracted

Procurement & Marketing

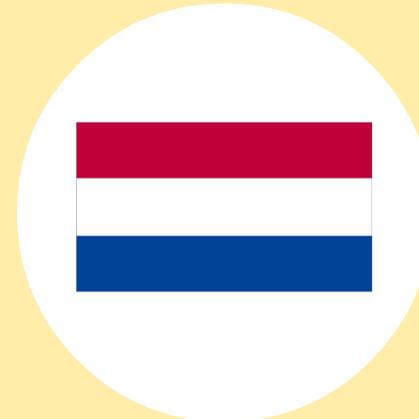
SUBTASK A



THE NETHERLANDS

Medium sized systems projects:

- **Space for Solar Housing associations**
 - Turnkey delivery, 6–15 years guarantee
- **Soltherm Europe Initiative 11 countries**
 - Goal, 100 million sqm in 2010
 - Co-operation sales and installation companies
 - Information campaigns
 - Collaboration with Task 24 essential
 - Int. collaboration in Task 24 the most advanced in Europe



Procurement & Marketing



SUBTASK A

SWEDEN

● Small systems

- 14 entries received, 3 from outside Sweden
- Uponor winner, 5 test installations
- Upgraded improved material tested
- Start of delivery spring 2002



● Large systems

- 11 tenders received, 4 from outside of Sweden
- Goal 4,000–10,000 sqm
- Project postponed
- Not enough guaranteed volume

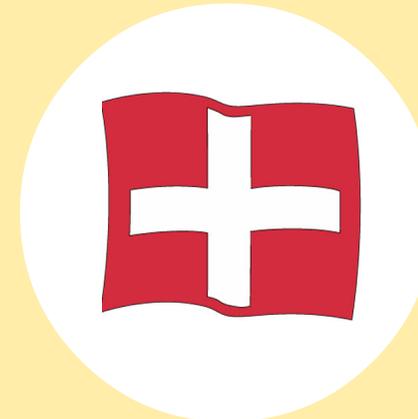
Procurement & Marketing

SUBTASK A



SWITZERLAND

- Work influenced by referendum
- 50 Solar Roofs in the City of Zug
- 100 Solar Roofs in Lucerne
- 50 Solar Roofs in Burghof
- Solar for Flumroc for employees
- SSES virtual buyer group (on the Internet)
- Manual for buyer groups
- New concept – the "Solar Jacuzzi"
 - Solar hot water and upgraded bathrooms



EXAMPLES



Marketing activities and preparations for procurement



www.ieatask24.org



Internet Tools



In the "First Task Round" national experiences gathered with Internet tools:

Sweden: <http://solupphandling.bfr.se>

Denmark: www.soltilbud.dk

Switzerland: www.solarpooler.ch

Netherlands: www.baldezoon.nl

Creation of Tools

SUBTASK B



- Task 24 homepage including the "Book of Tools\Business Tools"
- Edited by Denmark
- Newsletter twice a year by Denmark
- Contacts with suppliers
- Draft Guide for Tender
 - Examples sent for supplier comments
- Information activities
- Award of Excellence
- Midterm Evaluation



Subtask B Lead Country: Denmark

Solar Procurement



In Denmark, a 20% price reduction was achieved for solar water heaters



In the Netherlands, 59 housing companies formed a buyer group



In Sweden, 8 small systems were tested

Uponor winning system

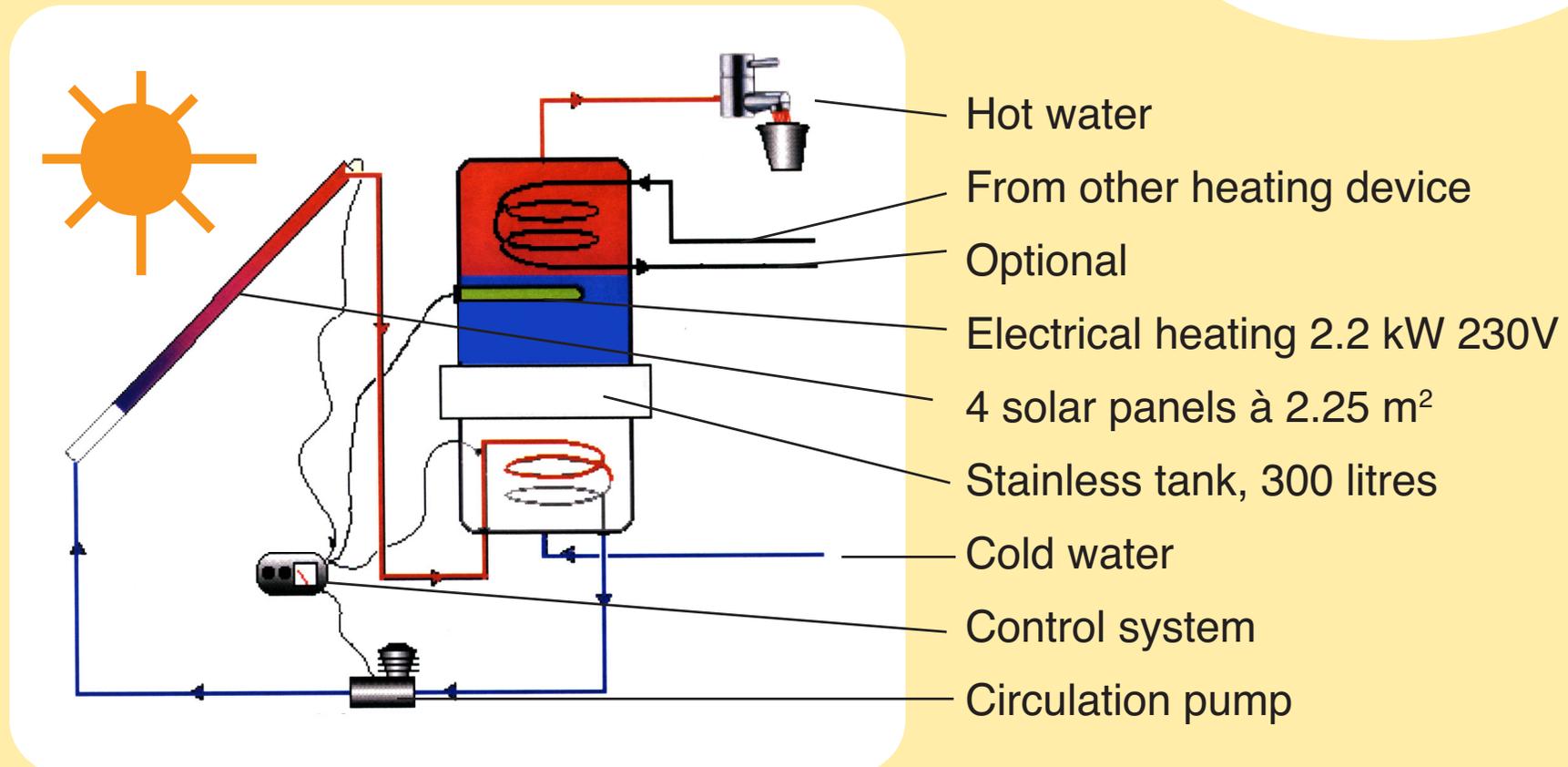
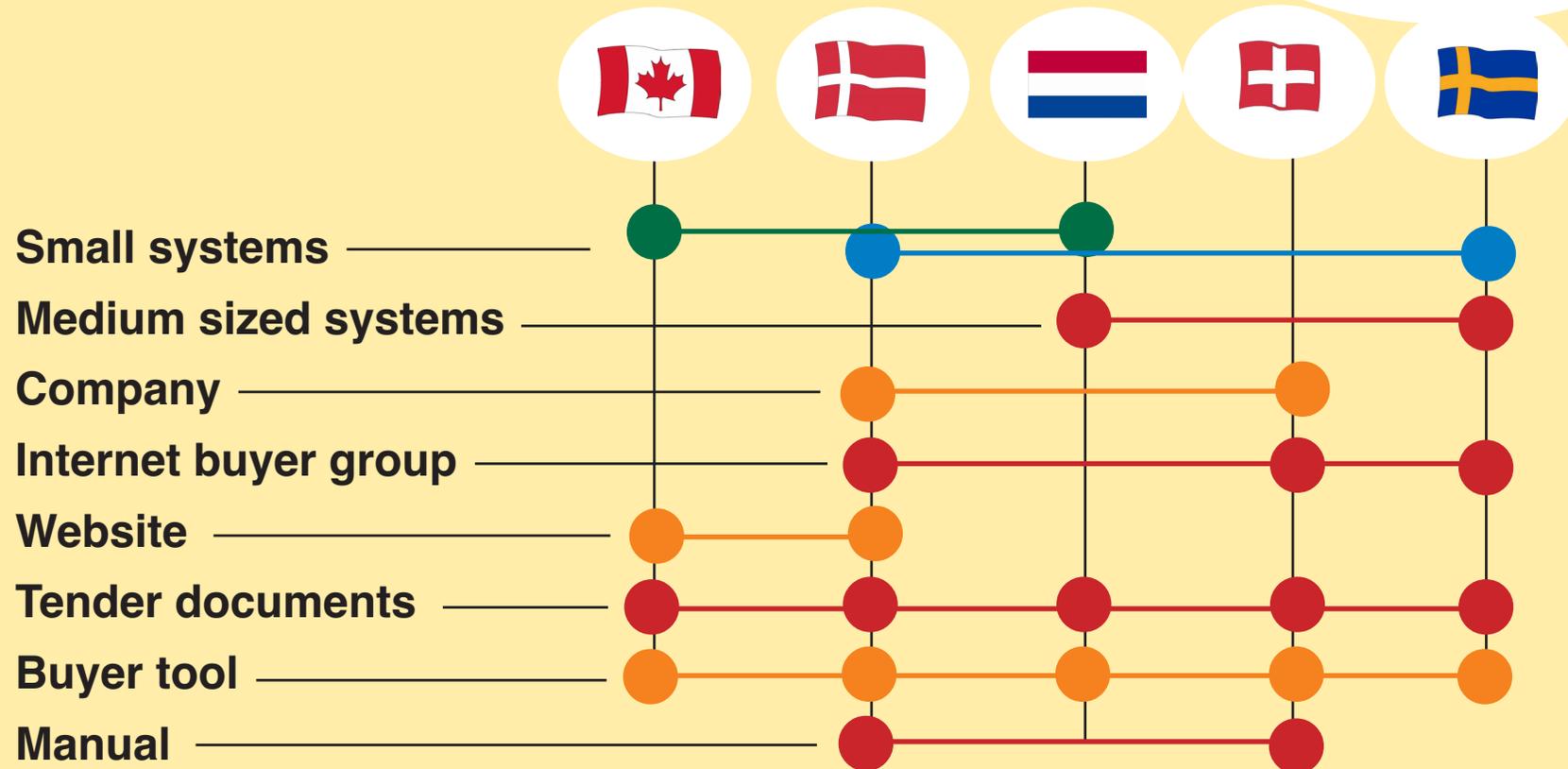


Illustration: Matti Nordenström

Special Evaluation

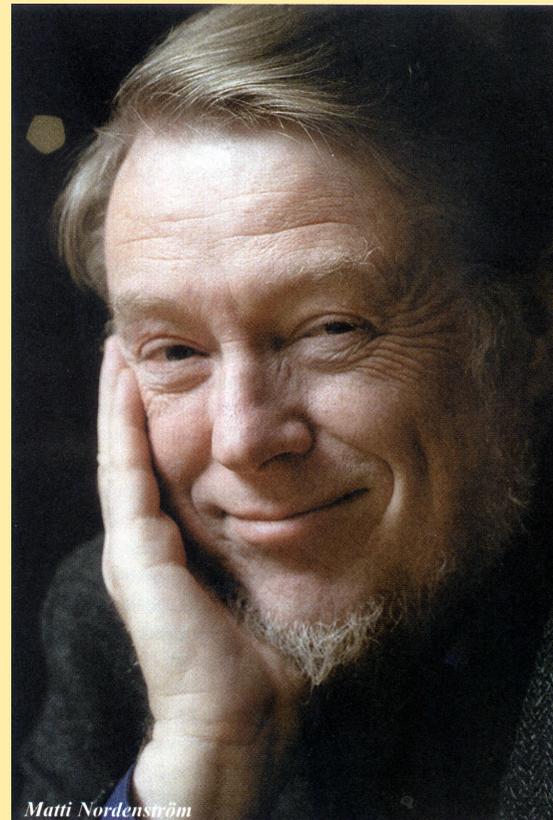
COLLABORATIVE WORK



Champions & Enthusiasts



**Important for
innovation**



Matti Nordenström