



## About ARTES 2000

### The ARTES initiative.

Representants for Svenska NATIONELLA RealTidsföreningen (SNART) called on Bernt Ericson, at that time chairman in SSFs IT-group, in february 1995. Bernt asked Hans Hansson (at that time chairman in SNART) to coordinate the planning of a Swedish network for real-time research.

### ARTES goals are

1. **to increase the number of PhDs and Licentiates** which play important roles in development of industrial real-time applications and products. Concretely, the long term goal is 50 graduate degrees per year in ARTES related areas (the level 1997 was about 20 degrees per year), and that at least 80% of the graduates start an industrial career.

ARTES will reach 30 supported active PhD student this year, from 2004 will the number of exams increase and reach the goal at about 2005.

2. **to increase the efficiency of graduate education.** The goal is that no ARTES graduate student should have a study-time exceeding the nominal times of 2 years for a licentiate and 4 years for a PhD (compensating for departmental duties and periods of industrial work).

It looks good so far, the PhD students keep a good speed.

3. **active industrial involvement in research and graduate education, as well as academic involvement in industry.** Concretely, each ARTES supported project should have at least one active cooperation activity, e.g., in the form of an industrial engineer participating in the project, or a graduate student performing parts of his/her research in industry.

This goal has been reached.

4. **to maximise synergy between the real-time components** in strategic centers supported by SSF, as well as with other

efforts in the area. Concretely, at least 50% of the ARTES supported projects should have a formalised or informal cooperation (e.g., in terms of joint papers) with related national programmes.

All projects is carried out in research groups with support from several capital providers. ARTES has not evaluated how well this goal has been fulfilled.

5. **to increase national and international cooperation** in real-time systems research and education, and

ARTES have increased the national cooperation within the area and stimulated international cooperation.

6. **to provide a broad base** for Swedish real-time systems research, and **to make Swedish real-time systems research world leading** in selected areas.

ARTES have increased the cooperation in the area. Besides research are ARTES supporting SIGURT (SNART:s interest group for undergraduate education). This may lead to a higher level on grauate education due to introduction of more real-time issues in undergraduate levels. Swedish real time research is (almost) worldleader in several areas this is reflected by the contributions to international conferences (see Thomas Lundqvists, Man Lins och Andreas Ermedahls, reports in ARTES Mobility reports). The number of Swedish publications in leading Real time conferences has doubled the last year.

IEEE Real-Time Systems Symposium (RTSS'99):	3
Euromicro Conference on RTS (ECRTS'99):	4
IEEE RT Technology and Appl. Symp. (RTAS'99)	2
R-T Computing Systems and Appl. (RTCSA'99)	12

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