

# THE VOCATIONAL CHALLENGE OF HIGHER EDUCATION IN FINLAND

## DEVELOPING A VIRTUAL POLYTECHNIC

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**THE FINNISH REFORM OF HIGHER VOCATIONAL EDUCATION TOOK PLACE DURING THE ECONOMICAL RECESSION PERIOD AND FAST DEVELOPING HIGH-TECH YEARS OF 1990'S.**

**THE DEVELOPMENT OF POLYTECHNICS IN FINLAND STARTED IN 1992, WHILE OUR HIGHER VOCATIONAL EDUCATIONAL SYSTEM WAS PREPARED FOR JOINING THE EU IN 1995. NOWADAYS WE HAVE 32 POLYTECHNICS ALL OVER THE COUNTRY SERVING THE REGIONAL AS WELL AS INTERNATIONAL NEEDS OF INNOVATIVE WORKING LIFE.**

**THE RECESSION YEARS OF 1990'S AND RAPIDLY CHANGING AND FASTLY DEVELOPING WORKING ENVIRONMENTS MADE AN ENORMOUS CHALLENGE FOR PUBLICLY FINANCED POLYTECHNICS**

**TO KEEP UP WITH THE DEVELOPMENT OF WORKING ENVIRONMENTS OF PRIVATE ENTERPRISES AT REGIONAL, NATIONAL AND INTERNATIONAL LEVELS , NOT ONLY IN THE FIELDS OF BUSINESS AND TECHNOLOGY, BUT IN CRAFTS AND DESIGN, TOURISM AND HEALTH CARE AS WELL.**

**DIGITAL LIBRARY AND WIRELESS FUTURE:  
-THE AIM OF HIGHER VOCATIONAL EDUCATION IS TO REACH TO THE FUTURE,  
HIGH-TECH COMPANIES ARE MAKING THIS CHALLENGING EVEN NOW**

1) EDUCATIONAL MATERIAL

2) THESIS

**TEXT AND  
GRAPHICS**

**ANIMATIONS**

**SIMULATIONS**

**STREAMING AUDIO & STREAMING VIDEO**

**REAL AUDIO & REAL VIDEO**

**REFERENCES**

**[HTTP://WWW.WIRELESSFUTURE.NOKIA.COM](http://www.wirelessfuture.nokia.com)**

**[HTTP://WWW.EMBLAZE.COM](http://www.emblaze.com)**

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**HERE ARE SOME SOLUTIONS  
PLANNED FOR A FINNISH POLYTECHNIC  
TO INNOVATE ALSO THE REGIONAL DEVELOPMENT**

# HIGHER VOCATIONAL EDUCATION AND THE DEVELOPMENT OF VIRTUAL POLYTECHNIC IN SOUTH CARELIA FINLAND



INTEREST GROUPS

REGIONAL COUNCIL OF SOUTH CARELIA  
MINISTRY OF EDUCATION., MIN OF TRADE & INDUSTRY

CONTINUING EDUCATION

PRIVATE ENTERPRISES

OPEN LEARNING ENVIRONMENTS AND NETWORKS

POPULATION OF SOUTH CARELIA  
CO-OPERATION WITH INSTITUTIONS OF HIGHER EDUCATION IN EU, RUSSIA, USA, ASEAN, MIDDLE-EAST AND MERCOSUR

INFORMATION CENTRE OF SOUTH CARELIA POLYTECHNIC

DEPARTMENTS AND DEGREE PROGRAMMES OF SOUTH CARELIA POLYTECHNIC

CENTRE OF MULTI- AND HYPERMEDIA

8. OUTSIDE MONEY RESOURCES AND BUDGETINGI

7. EFFECTS OF VIRTUAL POLYTECHNIC ON SOCIAL ENVIRONMENT

6. OPERATIONS AND SYSTEM KEEPING

5. ANNUAL INVESTS

4. TECHNICAL PROBLEMS

3. INSTITUTIONAL DEVELOPMENT OF WORKING ENVIRONMENT.

2. PERSONNEL RESOURCES NEEDED FROM OUTSIDE

1. PERSONEL WITHIN OWN ORGANIZATION

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## DEVELOPMENT OF VIRTUAL POLYTECHNIC: INTRANET AND RUSSIAN TRADE AND CONSTRUCTION PROGRAMME

SOFTWARE TOOLS USED BY FINNISH  
POLYTECHNICS FOR THE DESIGN AND  
PRODUCTION OF DIGITAL  
LEARNING MATERIALS

1. ProTo- Project Tools for Learning
2. TELSipro
3. Lotus Learning Space
4. WebCT
5. WebBoard
6. FLE-Future Learning Environment
7. Thule - The Universal Learning Environment
8. FirstClass
9. TopClass
10. Virtual-U
11. IntraLearn
12. Own programmes

CO-OPERATION

POLYTECHNICS AND  
UNIVERSITIES  
WITHIN EU

RUSSIAN  
UNIVERSITIES  
AND INSTITUTES

CO-OPERATION

STUDENT'S SERVICES :  
CREDITS, EXAMINATION  
DATES, OTHER SERVICES

ADMINISTRATION :  
REGISTRATION ,  
DEGREES ETC.

NETWORK DEVELOPMENT  
BETWEEN LECTURE'S  
HOMECOMPUTERS  
AND POLYTECHNIC

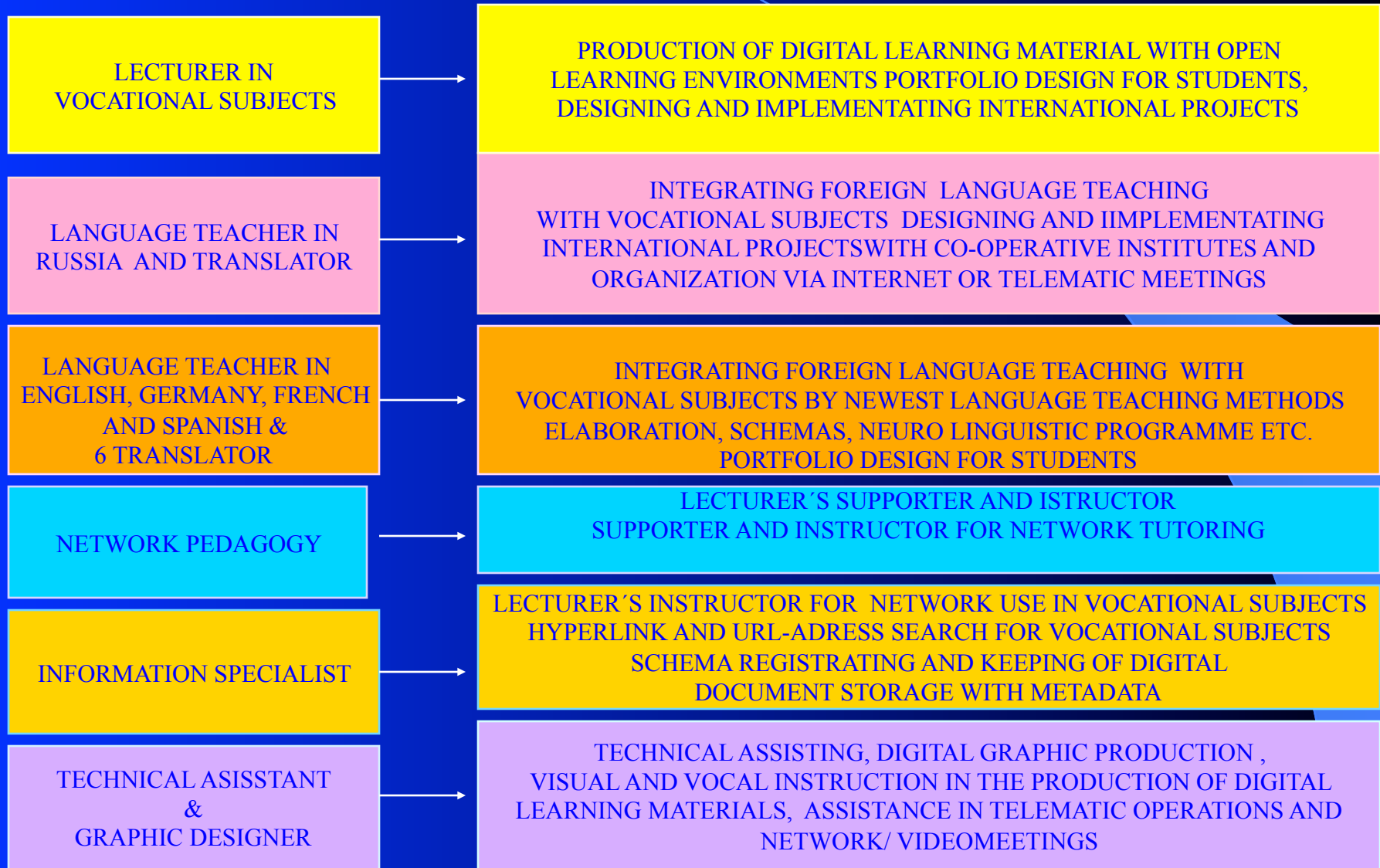
FOR TUTORING,  
DESIGN AND PRODUCTION OF  
DIGITAL LEARNING MATERIALS  
AND E-MAIL INFORMATION

FOR THE DESIGN AND  
PRODUCTION OF DIGITAL  
LEARNING MATERIALS :  
STANDARDIZED PROGRAMMES  
BETWEEN THE POLYTECHNICS  
LOCATED IN EASTERN FINLAND

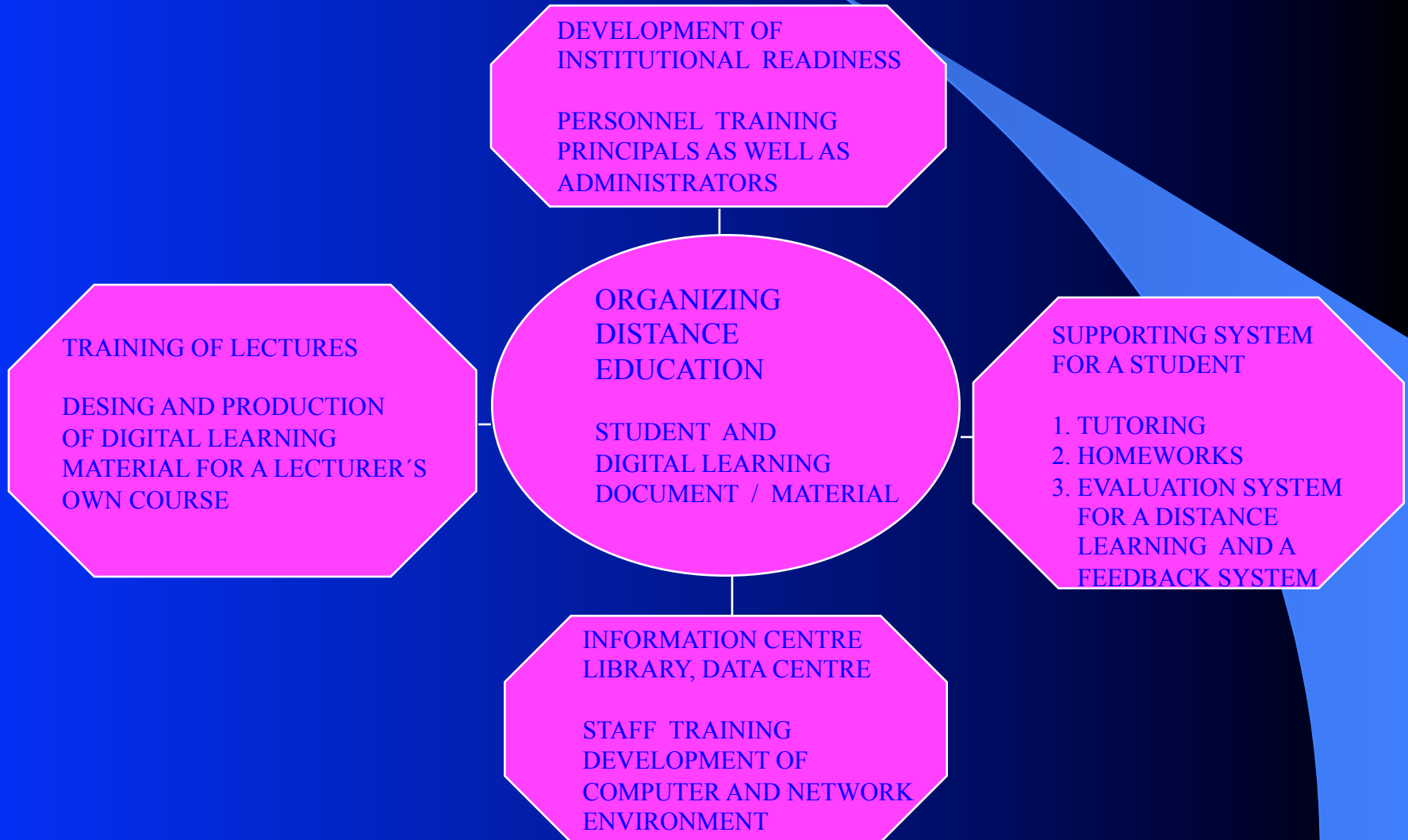
WEB-MASTER AS  
DEVELOPER OF  
INTRANET AND  
EXSTRANET  
NETWORKS

INFORMATION CENTRE  
INFORMATION SPECIALIST  
DOCUMENT STORAGE  
GUIDANCE OF DIGITAL  
LEARNING MATERIALS AND  
OPEN LEARNING  
ENVIRONMENTS  
VOCATIONAL SUBJECTS  
AND THEIR HYPERLINKS

# DEVELOPMENT OF VIRTUAL POLYTECHNIC : TELETEAMS FOR MULTILINGUAL INFORMATION SOCIETY PRODUCTION OF DIGITAL LEARNING MATERIAL FOR VOCATIONAL SUBJECTS

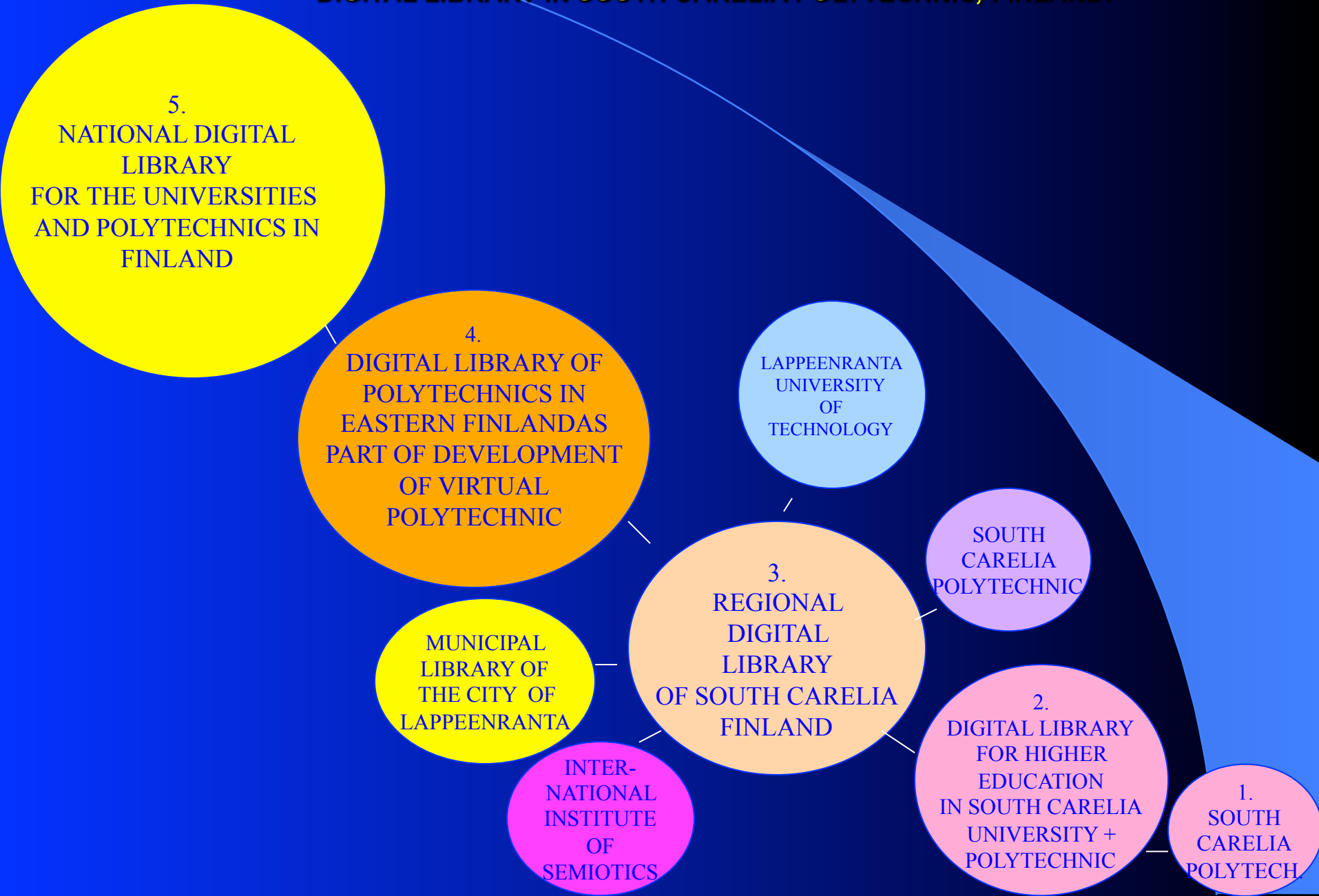


## DEVELOPMENT OF VIRTUAL POLYTECHNIC





## ALTERNATIVE SOLUTIONS FOR THE DEVELOPMENT OF DIGITAL LIBRARY IN SOUTH CARELIA POLYTECHNIC, FINLAND:



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## ● REFERENCES:

- UNIVERSITY OF HELSINKI, ELECTRONIC PUBLISHING. PROJECT PLAN 1998.
- [HTTP://HUL.HELSENKI.FI/TILKE/EJULK.HTML](http://hul.helsinki.fi/tilke/ejulk.html)
- [HTTP://WWW.DBI-BERLIN.DE/PROJEKTE/EINZPROJ/META/META00.HTML](http://www.dbi-berlin.de/projekte/einzproj/meta/meta00.html)
- [HTTP://WWW.SCHEMAS-FORUM.ORG/WORKSHOPS](http://www.schemas-forum.org/workshops)
- [HTTP://WWW.WIRELESSFUTURE.NOKIA.COM](http://www.wirelessfuture.nokia.com)

## ● INTERVIEWS:

- MINISTRY OF EDUCATION, POLYTECHNICS: MR. JUHA ARHINMÄKI
- LAPPENRANTA UNIVERSITY OF TECHNOLOGY [WWW.LUT.FI](http://www.lut.fi) : MS. ULLA OHVO
- SOUTH CARELIA POLYTECHNIC [WWW.SCP.FI](http://www.scp.fi) : MARJA HUUHTANEN