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TEHRAN UNIVERSITY
OF
MEDICAL SCIENCES



Virtual Workshop

On "MediTec" Project

(Training for Medical Education via Innovative e-Technology)

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Tehran, Iran



The experience of e-learning implementation in Iranian universities of medical sciences

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Agenda

- ❧ **Organizational structure of universities of medical sciences (UMSs)**
- ❧ **First e-learning attempts**
- ❧ **Virtual University of Medical Sciences**
- ❧ **E-learning establishment in UMSs**
- ❧ **E-learning dissemination in Corona crisis time**



Universities of Medical Sciences (UMSs) in Iran



Iranian universities of medical sciences

Ministry of Health and Medical Education



68 Universities of Medical Sciences



E-learning implementation experience

Ministry of Higher Education



Non-medical Sciences Universities



Programs delivered in Universities of Medical Sciences

- ❧ **Medicine, Dentistry and Pharmacy with related specialties**
- ❧ **BSc, MSc and PhD degrees related to biomedical sciences, e.g.:**
 - **Medical Education and e-Learning in Medical Education**
 - **Nursing and Midwifery**
 - **Biomedical basic sciences: Biochemistry, Immunology, ...**
 - **Rehabilitation Sciences: Physiotherapy, Optometry, ...**
 - **Para medical sciences: Laboratory Sciences, ...**
 - **Health related programs: Health Education, Epidemiology, ...**



First e-learning attempts

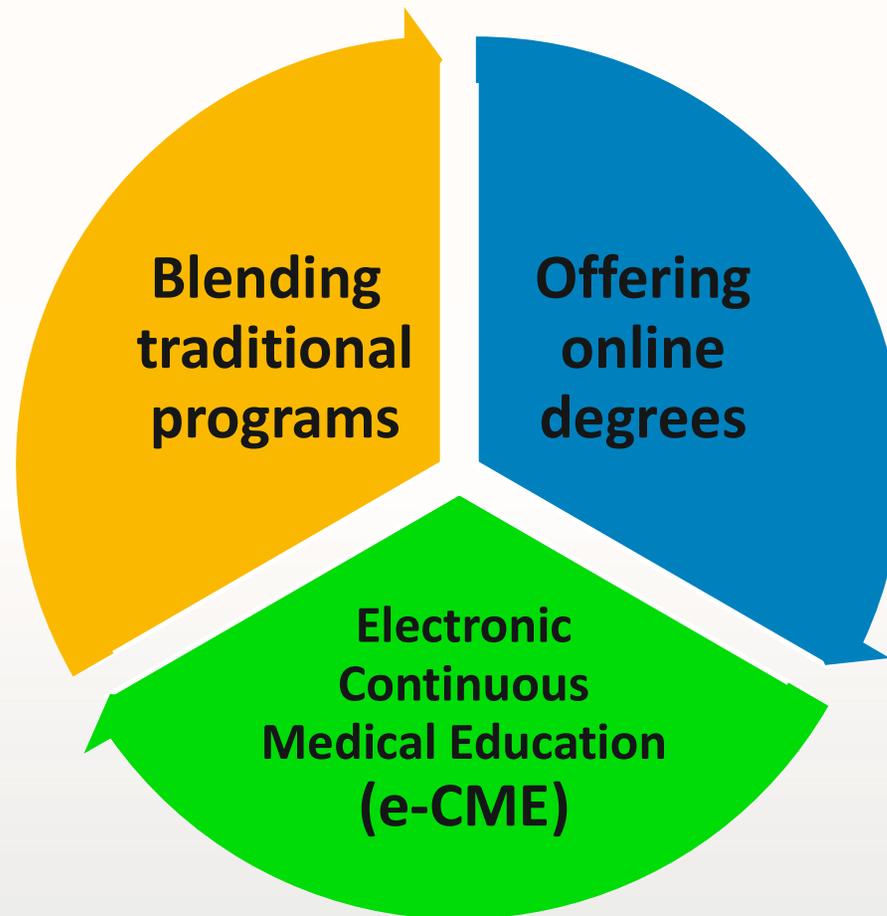


First attempts

- ❧ **Beginning of organized e-learning activities in Tehran University of Medical Sciences (TUMS) in 2005 leading to establishment of Virtual School in 2010**
- ❧ **Expansion of activities to other universities of medical sciences**



E-learning dissemination targets





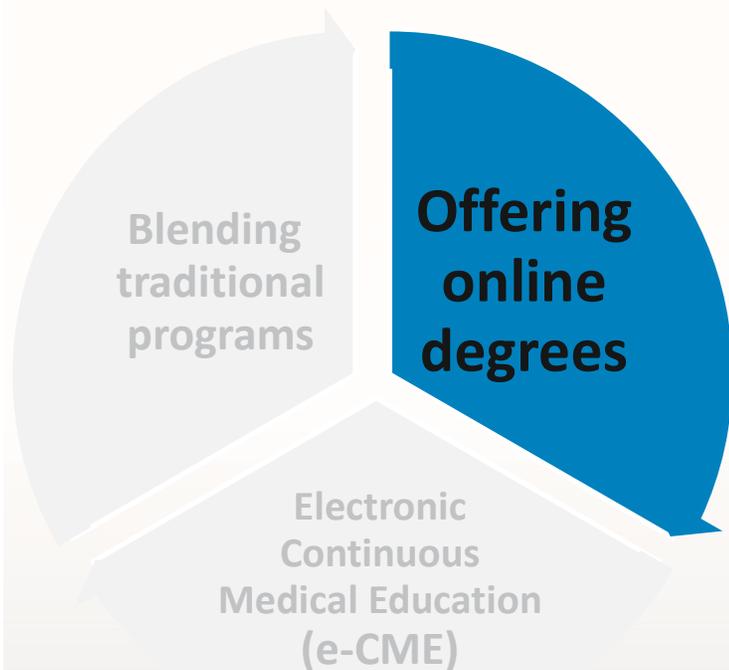
Efforts for reaching target goals

- ❧ **Developing IT infrastructure: LMS, content development facilities, ...**
- ❧ **Human resource capacity building: training workshops, Master & PhD programs of “e-Learning in Medical Education”, ...**
- ❧ **Approval of rules and regulations**
- ❧ **Providing incentives**
- ❧ **And so on**





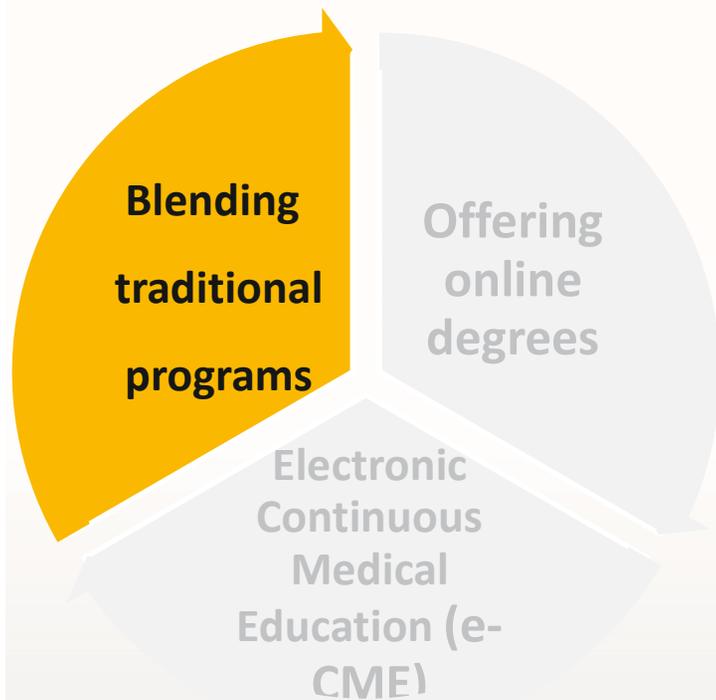
E-learning dissemination targets



- ✧ **First online degree was delivered in 2007, i.e. Master of Medical Education in TUMS**
- ✧ **Now some other degrees are delivered in different universities, e.g. “e-Learning in Medical Education”, “Educational Technology”, “Family Medicine”, & ...**



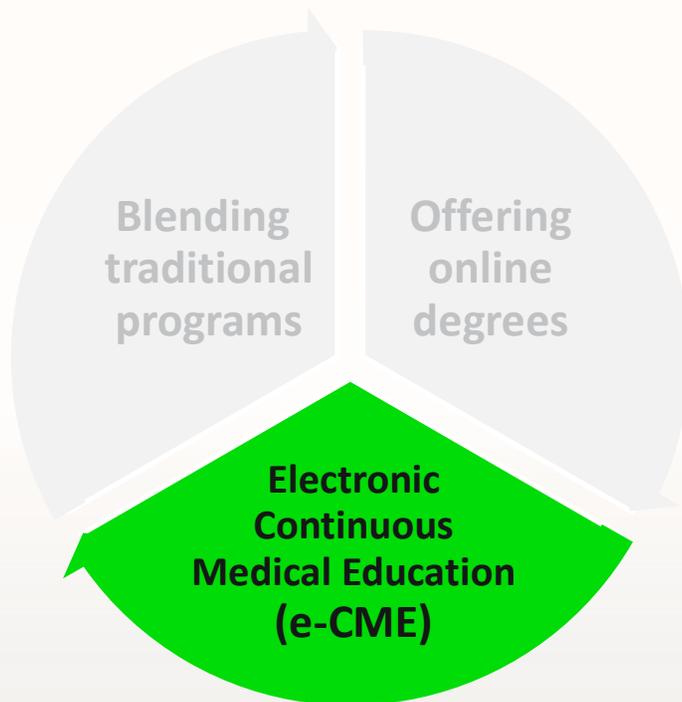
E-learning dissemination targets



- 🔗 The main goal of e-learning implementation: Integrating e-learning in running curricula
- 🔗 Starting from 2006 in some universities
- 🔗 Implemented to some extent in many universities before COVID-19 crisis



E-learning dissemination targets



🔗 **First e-CME site being launched in TUMS in 2007**

🔗 **Now some universities deliver e-CME credits**



National Centers of Excellence for e-Learning in Medical Education

🌀 Tehran University of Medical Sciences

🌀 Shiraz University of Medical Sciences





Virtual University of Medical Sciences



Ministry of Health and Medical Education

**Innovational
packages for medical
sciences education
in 2015**

**Package for virtual
learning dissemination**



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Virtual University of Medical Sciences



VUMS Missions

- ❖ **Capacity building of human resources regarding cyber space sciences through delivering educational programs & courses**
- ❖ **Providing high-quality e-learning infrastructure for universities of medical sciences nation wide**
- ❖ **Accrediting Virtual Schools/centers of universities of medical sciences**



VUMS Missions

Human resources capacity building



Capacity building

Delivering virtual academic degrees:

- **MSc of Medical Education**
- **MSC & PhD of e-Learning in Medical Education**
- **MSc & PhD of Educational Technology in Medical Sciences**
- **& ...**



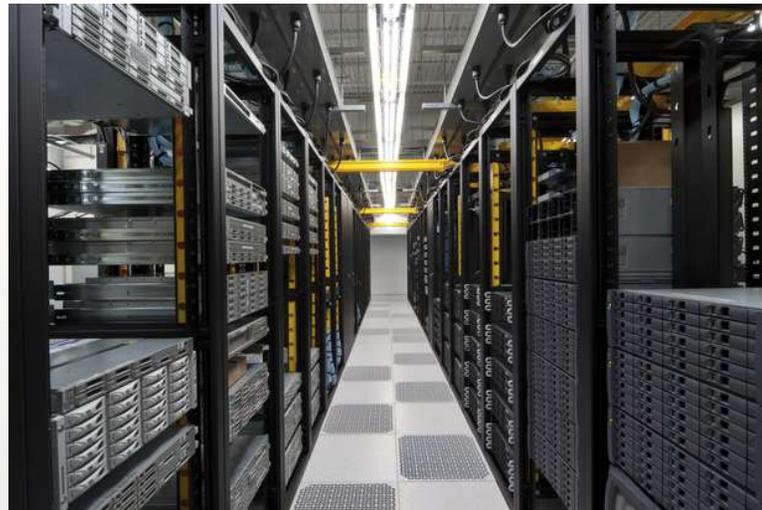
VUMS Missions

Providing infrastructure



National e-learning infrastructure

- ❖ Establishment of a high standard hard ware infra structure with collaboration of Ministry of Health & Medical Education





National e-learning infrastructure

- **Establishment of standard e-content development acoustic studios**
- **Providing consultation to other universities for establishing such studios**





National e-learning infrastructure

**Development of e-content educational and
technical standard**





National e-learning infrastructure

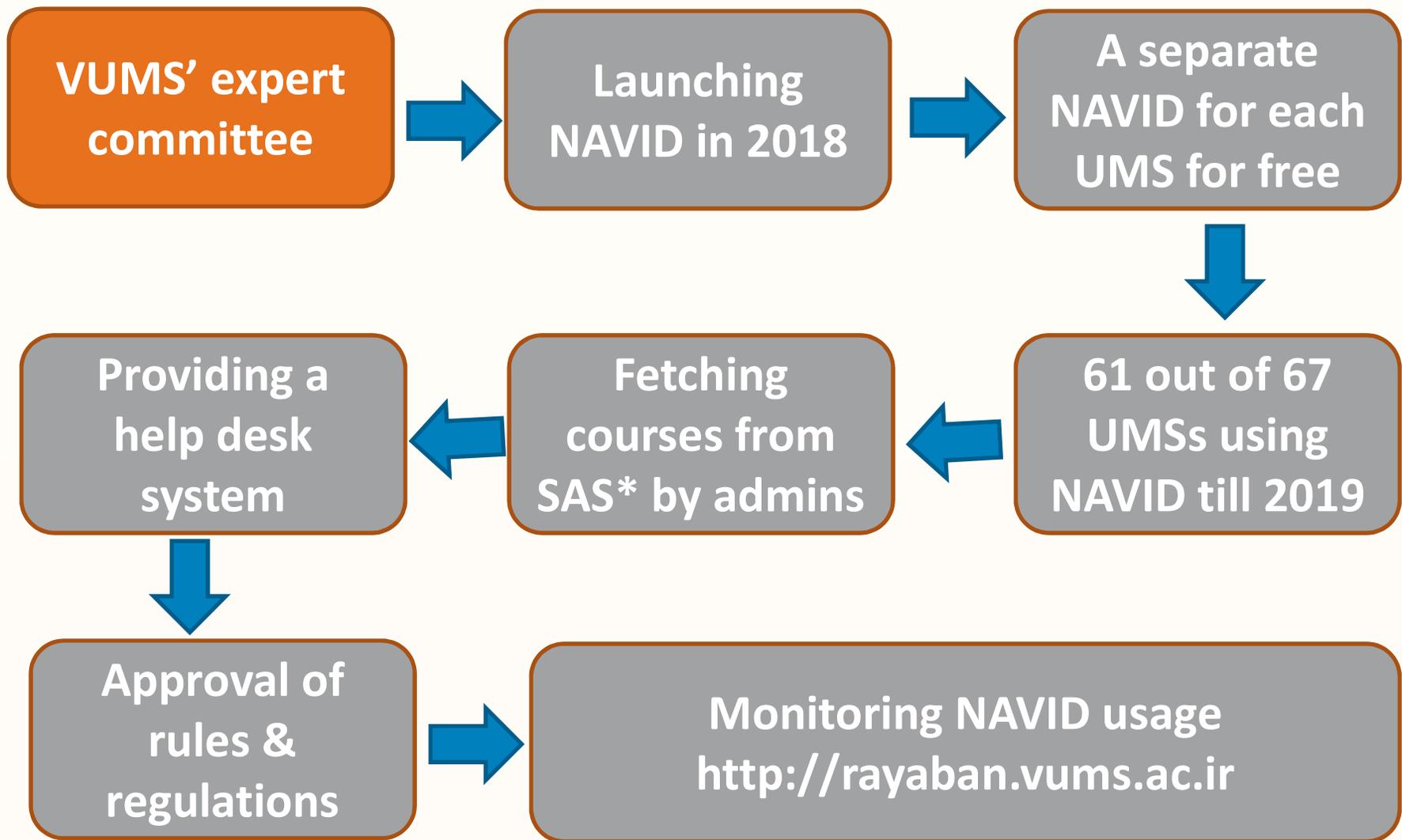
VUMS megaproject

**Design & development of
Iran's national LMS-MOOCs platform**

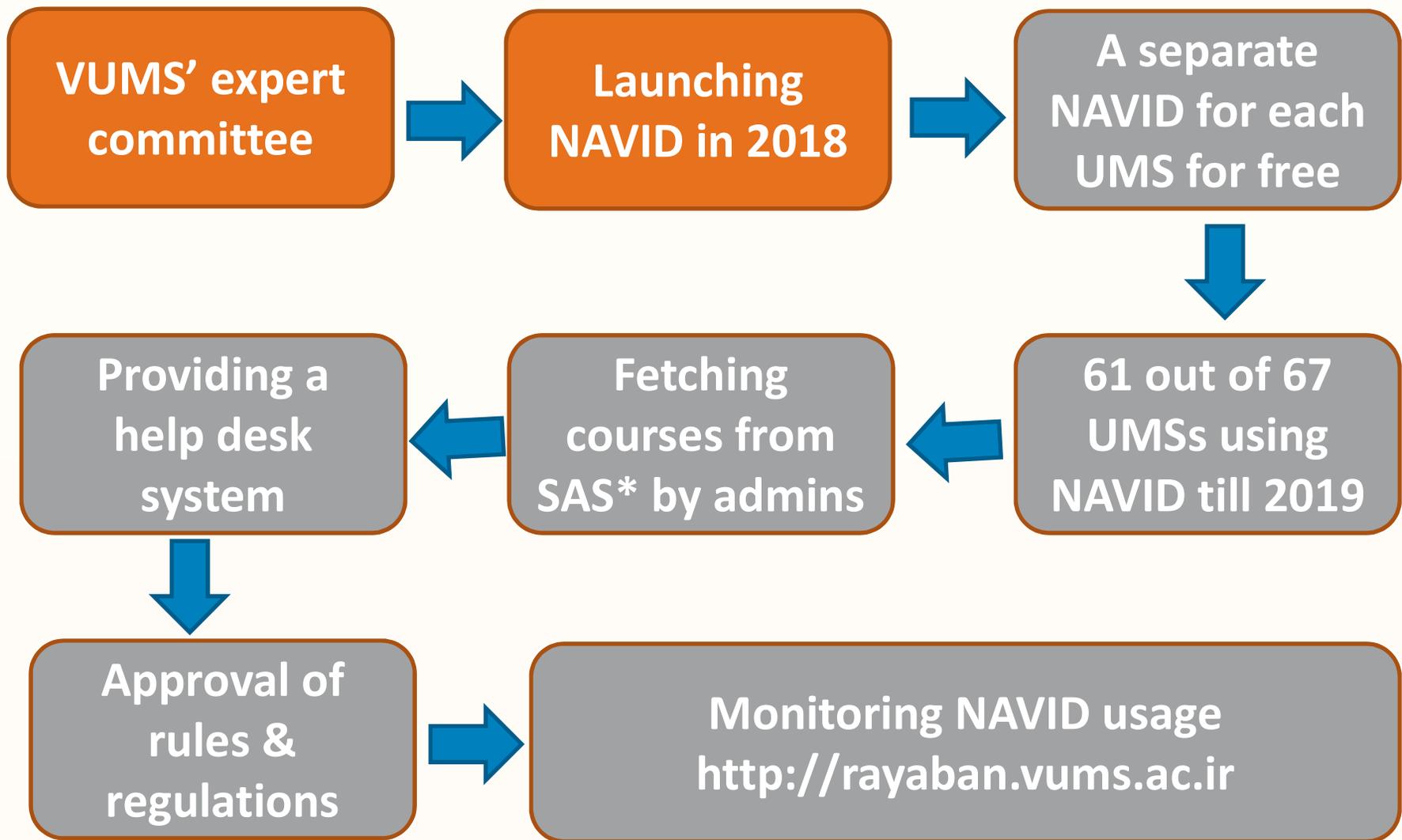


LMS provision in UMSs before 2018

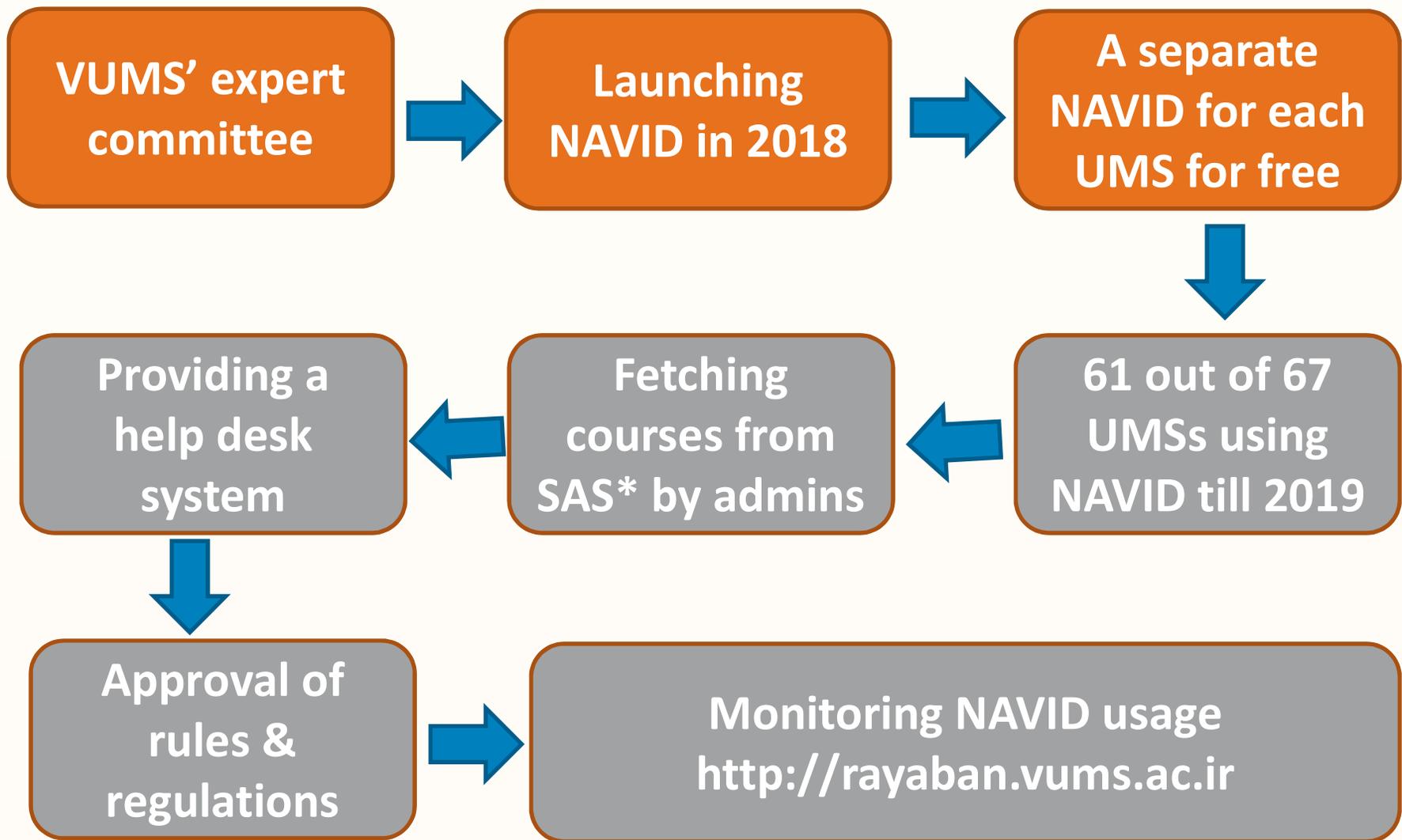
- **UMSs faced some challenges like affording the costs, sanction issues, supplying appropriate hardware and hiring expert staff.**
- **A few universities used either open source software or the ones developed in some small Iranian software companies.**



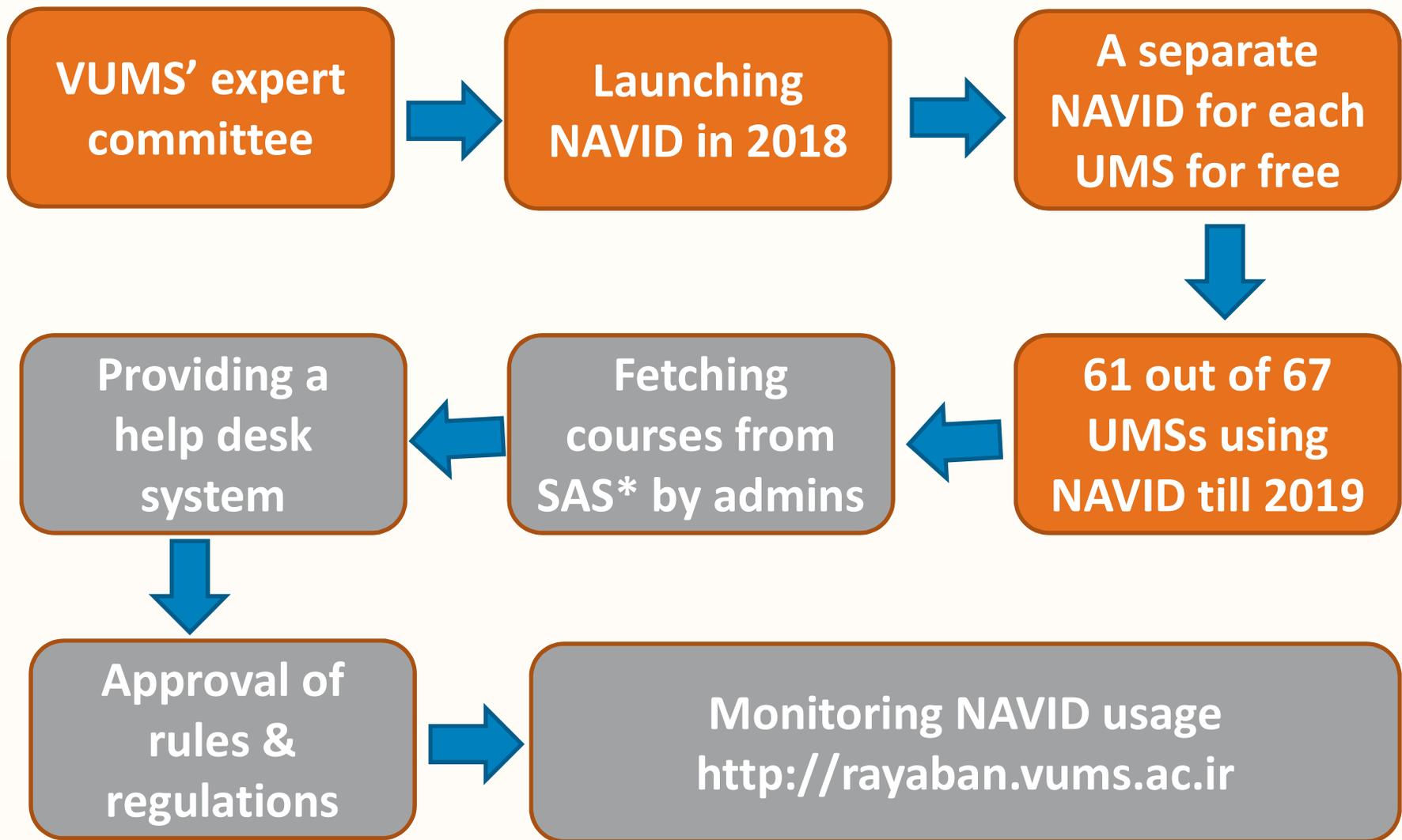
* SAS: Student Administration System



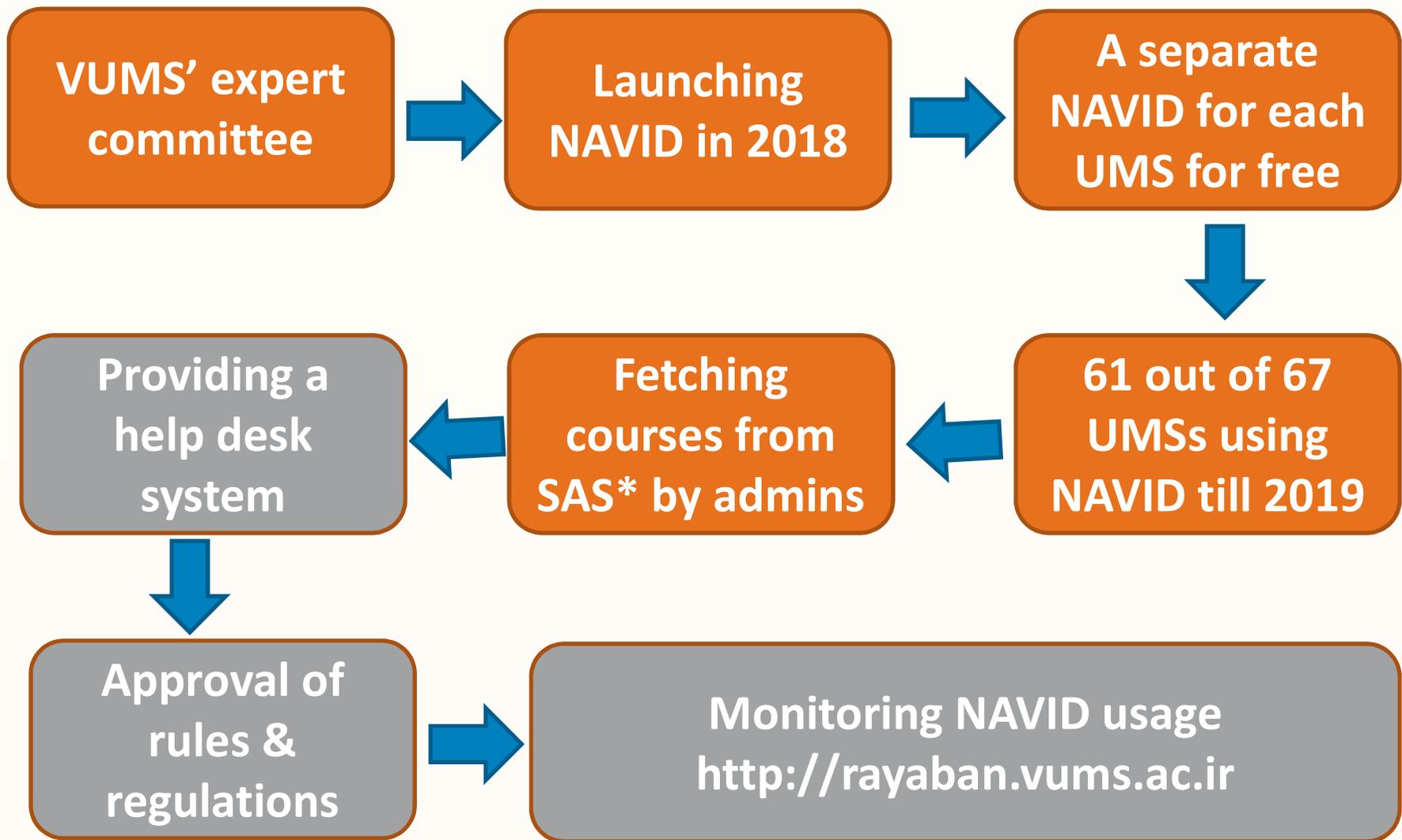
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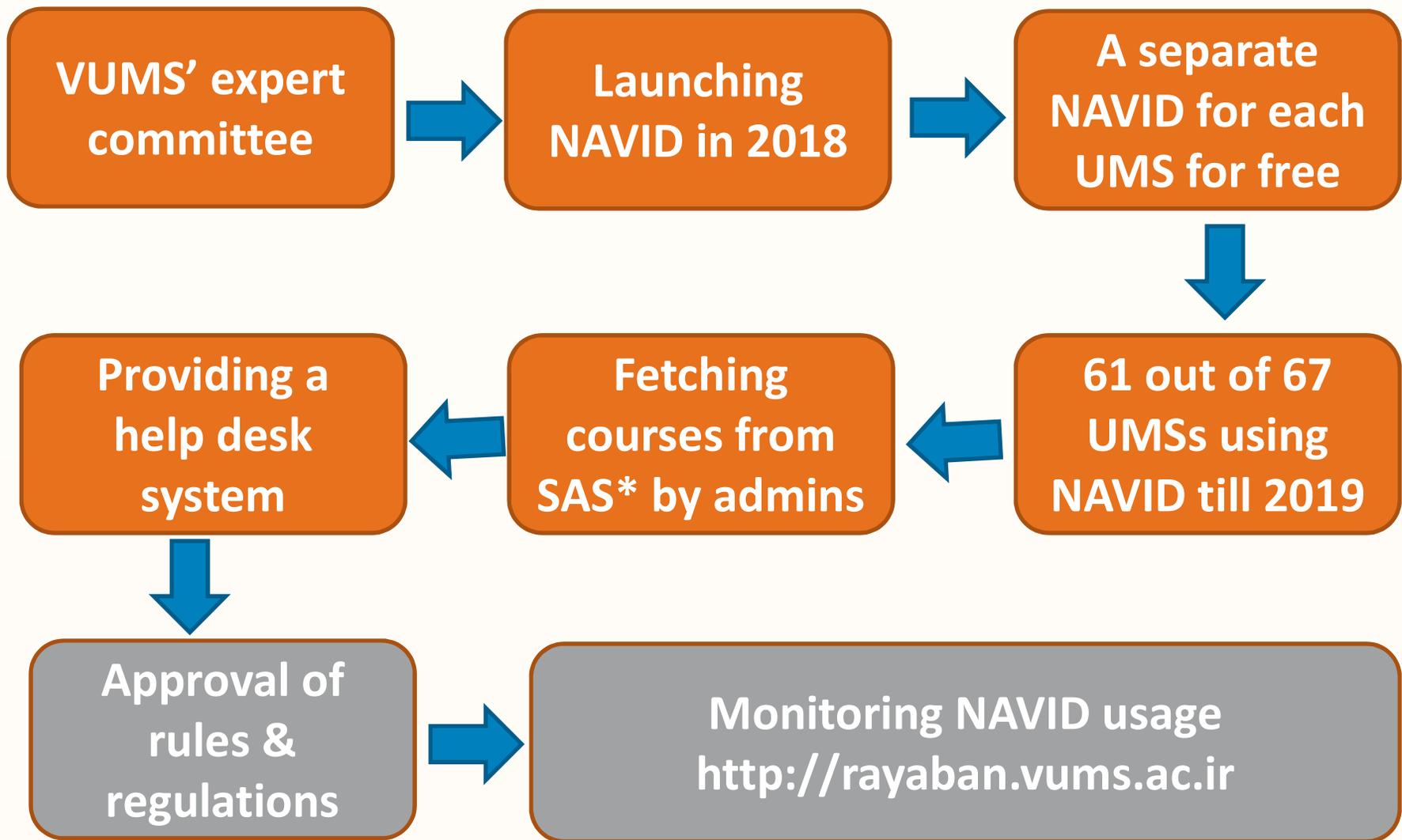
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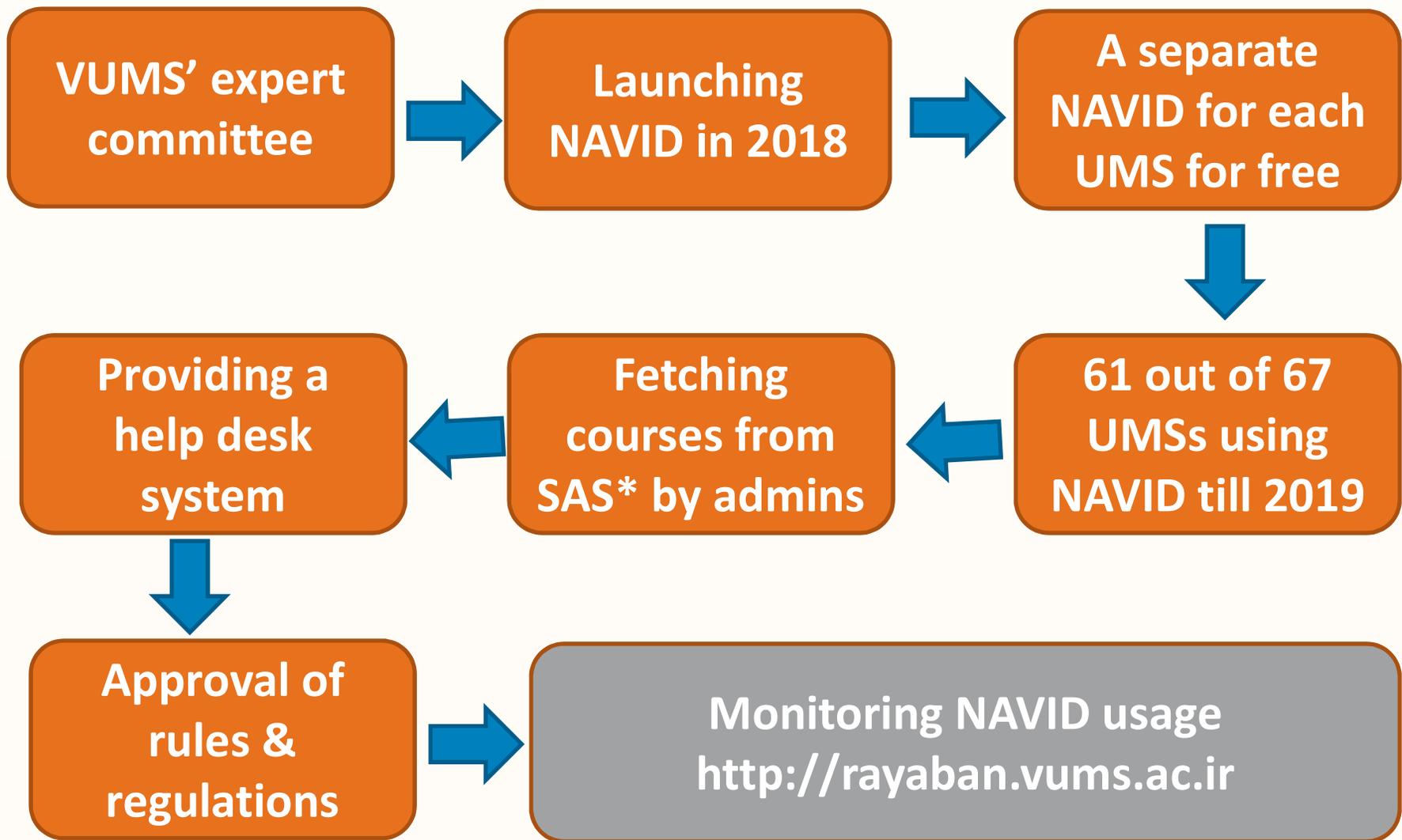
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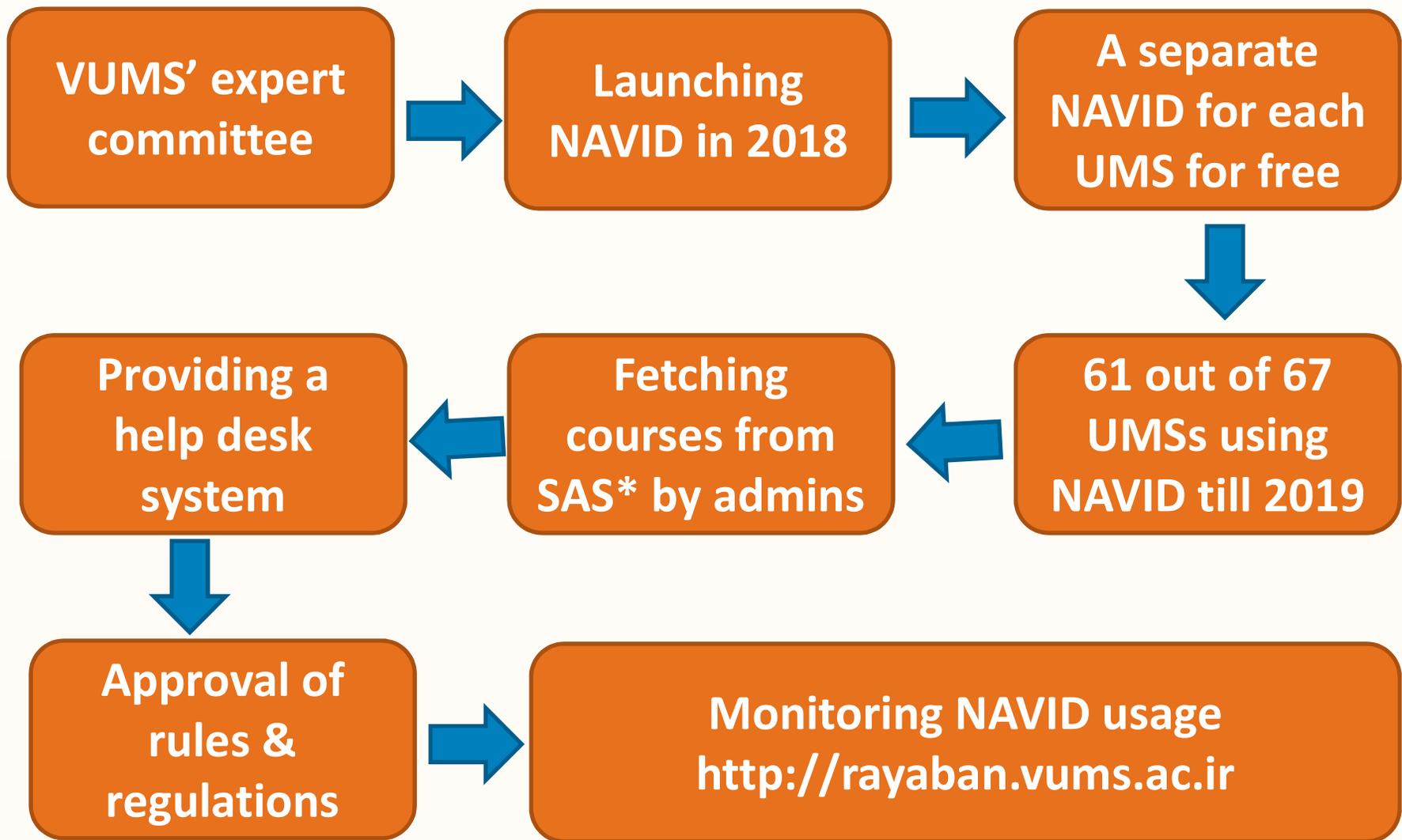
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* SAS: Student Administration System



NAVID LMS

- **A user friendly software**
- **Some features and modules:**
 - Delivering course syllabus; uploading resources; enabling Interactions like assignments, discussions; assessment tools; offering reports; being connected to synchronous communication tools; course copying facility; gamification and so on.**



Virtual University of Medical Sciences

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فارسی



Navid

Academic Learning Management System

Login to System

NAVID

SAMA

**UNESCO National
Award**

**Navid News,
Announcements and
Updates**

**News and
Announcements**



Iran's MOOCs: ARMAN

- **Educational program types:**
 - **e-Content delivery (Quasi-MOOCs)**
 - **Courses**
 - **programs**



ARMAN

- **Establishment of ARMAN High-council**
- **Designing accreditation standards & structure**



VUMS Missions

Accrediting Virtual Schools & e-Learning centers



Accreditation System

- **VUMS is delegated as Secretariat for High Council of Virtual Learning by the Ministry**
- **Accreditation structure and standards being approved**
- **Centers/schools voluntary participate in this process to benefit from advantages of being approved.**



E-learning dissemination during Corona crisis



e-Learning and Covid-19 pandemic

- **Governments have closed educational institutes all over the world.**
- **It is estimated that more than 91% of students, from preschool to postgraduate ones, are affected by this closure.**
- **Covid-19 outbreak has interfered with university education in all disciplines including medical sciences**



UMSs and Covid-19 pandemic

- Iranian universities are closed to prevent Covid-19 spreading from 22 February 2020.**
- UMSs' educational sectors follow the same policy, except for internship and residency students of medical schools who provide services in educational hospitals alongside with clinical faculty members and staff.**

UMSs and Covid-19 pandemic

**VUMS'
Task force**

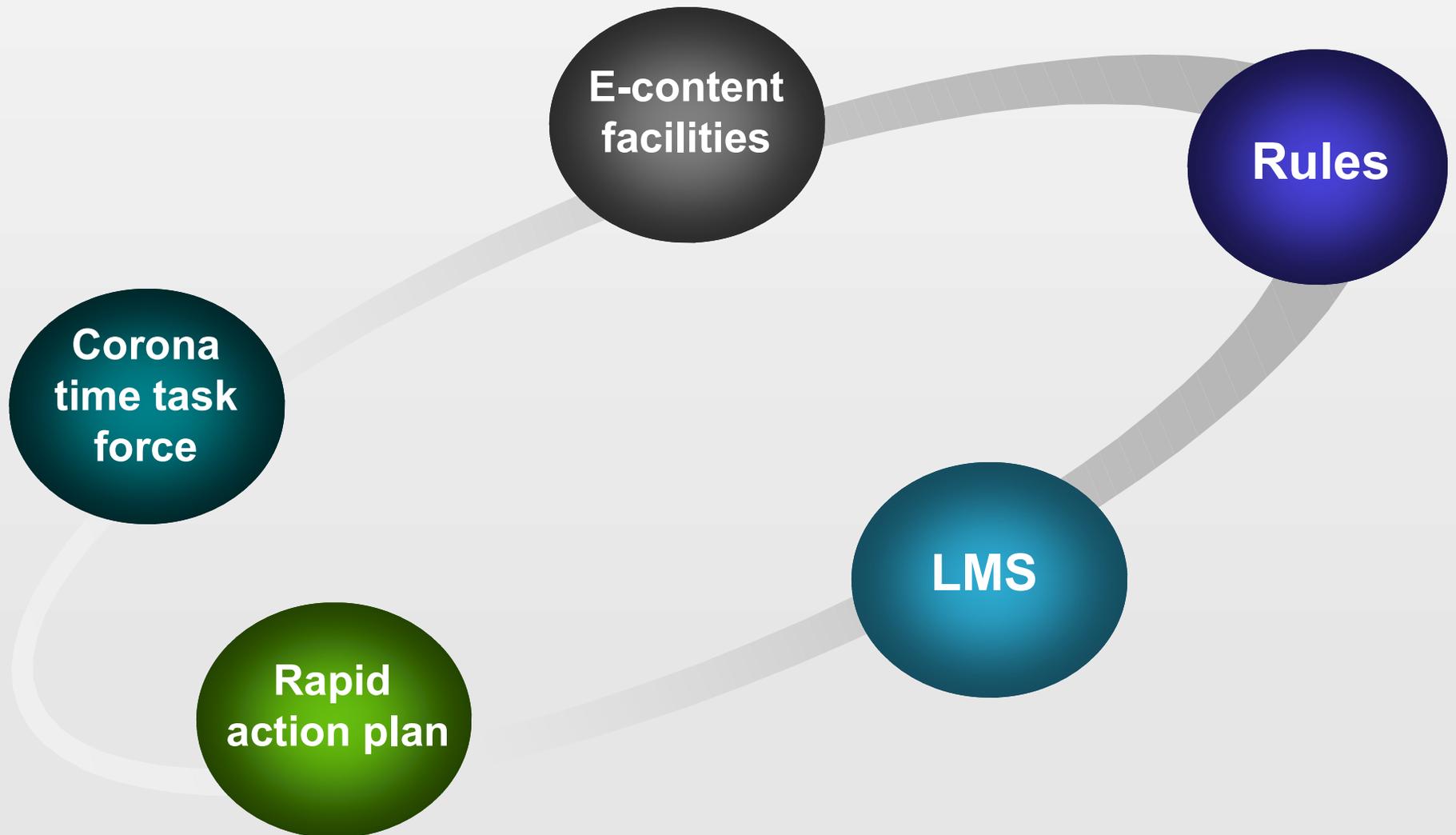


Context analysis



**Rapid
action plan**

E-learning status in UMSs at the beginning of Corona crisis



Actions in Corona time

Reorganizing
the help
desk system

Faculty
members'
capacity
building

Preparing
courses in
LMS

Monitoring
e-learning
trend in
UMSs'

Actions in Corona time

Help desk
system

- **Increasing working hours to 20 hours a day**

Capacity
building

- **Helping NAVID admins debugging transferred data from SASs and resolving problems**

Preparing
the LMS

- **Holding online workshops for admins**

Monitoring
the trend

Actions in Corona time

Help desk
system

A self-study MOOC in Iran's national MOOCs platform.

(<http://arman.vums.ac.ir>)

Capacity
building

- How to design a blended course? Quick hints for instructional design
- How to deliver a course in NAVID? Ten practical tips
- How to deliver a team teaching course in NAVID?
- How to teach effectively in synchronous online tools? 12 practical ideas
- 14 frequently asked questions for using NAVID
- 6 important considerations for evaluating e-courses

Preparing
the LMS

Monitoring
the trend

Actions in Corona time

Help desk
system

Capacity
building

Preparing
the LMS

Monitoring
the trend

- **Fetching data from UMSs' SASs to NAVIDs within 10 working days from 22nd to 29th February**
 - **63182 courses**
 - **15641 teachers**
 - **135065 students**
 - **1213950 course-student records**

Actions in Corona time

Help desk
system

Capacity
building

Preparing
the LMS

Monitoring
the trend

- **A rapid increase in e-learning usage after Corona crisis**

National Observatory System of e-Learning Activities INVENTORY

Rayaban



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National Observatory System of e-Learning Activities INVENTORY



The Secretariats of Main Medical Sciences Education Sub-regions in Iran:

Subregion 1

Subregion 2

Subregion 3

Subregion 4

Subregion 5

Subregion 6

Subregion 7

Subregion 8

Subregion 9

Subregion 10

<http://rayaban.vums.ac.ir>

20535

Active e-Teachers

All e-Teachers: 24088
Teacher-Course: 151421

26991

Active e-Courses

Seen e-Courses: 45387
All e-Courses: 71679

443384

Contents

17315

Discussions

21028

Exams

107935

Assignments

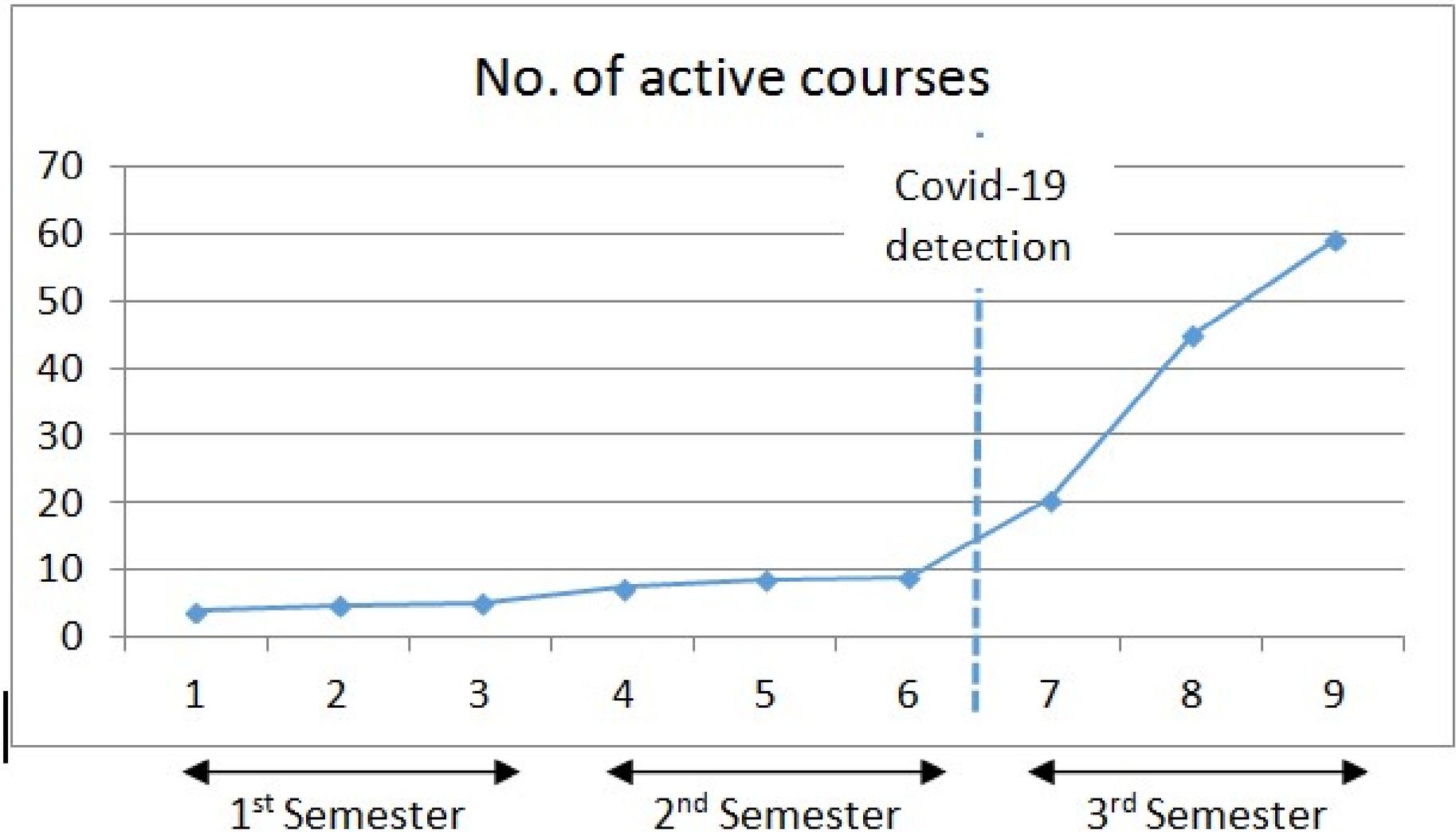
110559

Active e-Students

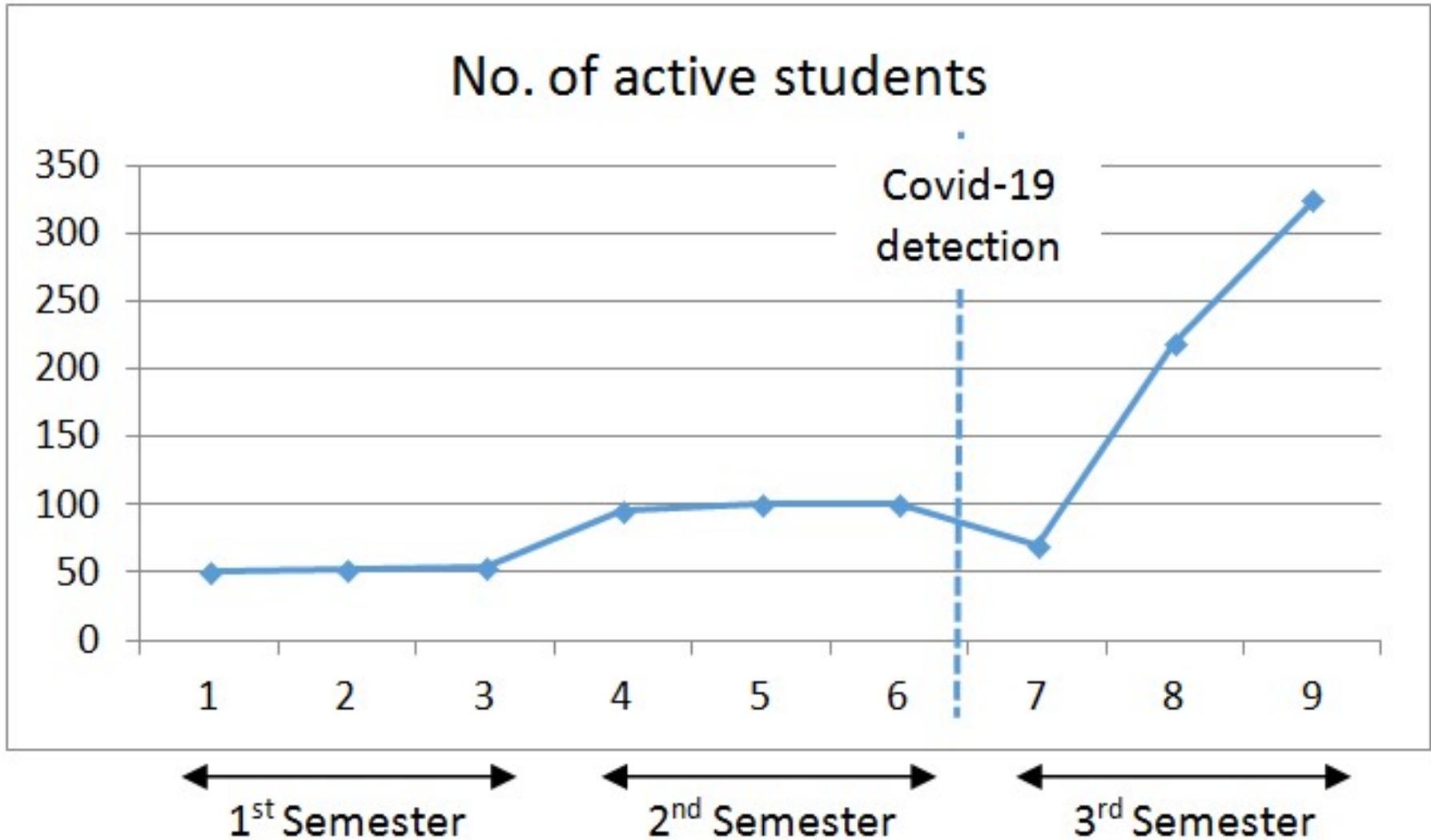
All e-Students: 183610
Student-Course: 1531765

Realtime accumulative statistics of NAVID usage in all universities for current semester.

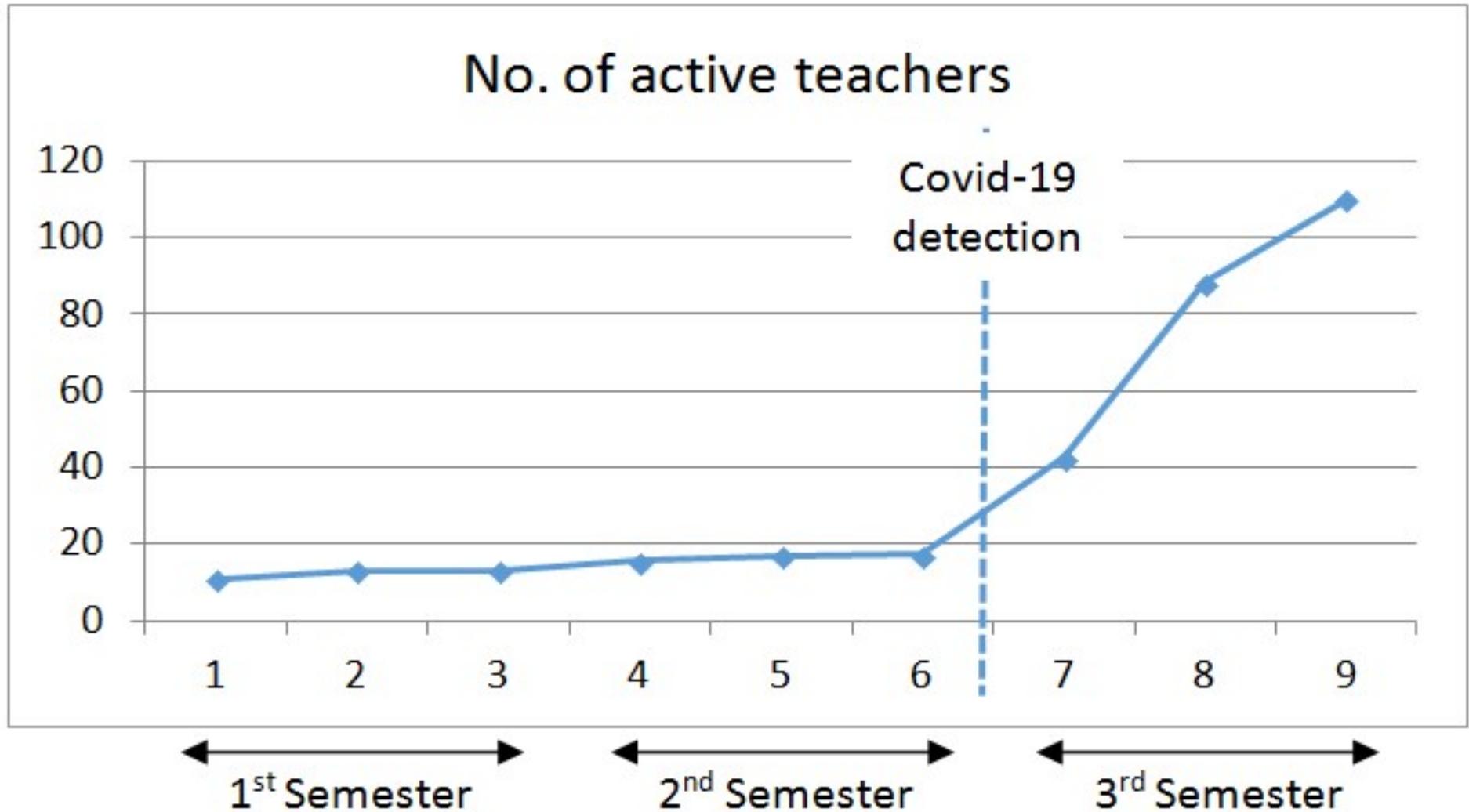
The trend for the number of active courses in three semesters



The trend for the number of active students in three semesters



The trend for the number of active teachers in three semesters





Opportunities and advantages

- **Launching NAVID for each UMS for free**
- **Pre approval of rules and regulations**
- **NAVID being a user friendly software**
- **Good help desk system**
- **Easy access to courses in NAVID**



Challenges

Challenges were more perceptible for those universities that were somehow newcomers for e-learning system establishment.



Challenges

- **Technical issues**
- **Training faculty members**
- **e-Content development**
- **Quality of e-teaching**
- **Final exams**
- **The most important challenge:**
Practical & clinical courses



Conclusion Summary

