Arab States Research and Education Network (ASREN)

Promoting world-class Pan-Arab e-Infrastructures and E-services for the Research and Education communities to boost Scientific Research and regional Cooperation

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Definition, Organisation and Strategic Plan

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1   What is ASREN

1.1   Introduction

Education and scientific research have become key elements and significant resources for economic development, technological innovation, and knowledge creation in the Arab region. The practice of scientific research is changing dramatically. Researchers working in isolation no longer contribute to technological innovations or social development. Only through multidisciplinary collaborations among research centres, industry and public entities that knowledge, innovation, and know-how can be facilitated. ICT technologies have played a major role in making such collaboration possible. The creation of an educational and research connectivity infrastructure has an amazing potential, most dramatically in its impact on enabling institution to "boot up" and join the globalizing developed world.

It has been noted that cooperation among Arab countries has been weak in scientific research. Renaissance is critically needed to meet regional challenges in areas related to education, health, environment, security, and governance. Today's research imposes new requirements not only in the way it is being conducted, but also in the computational aspects. Therefore, it has become essential to build up special dedicated network to connect research and education institutions with the purpose to:

- Widen the connectivity of National Research and Educational Networks (NRENs) into a Regional Research Networks.
- provide education/ research institutions with reliable means of communication at the regional level
- Strengthen the notion of partnership and encourage joint scientific research at all levels.
- Minimize the cost by using available research, academic and technical resources through a dedicated network with no need for duplicating investment.
- uplift efficiency and productivity and boost the concept of creativity and innovation through the use of e-infrastructure and network available resources

Therefore it has become a necessity to establish a regional network connecting existing NRENs in the Arab countries. Such a regional network still needs to be dedicated to research and education among academic institutions, research centers, and public/ private entities, respond to their demand for dedicated connectivity and centred on a necessity to:

- Establish scientific research networks at the national level NRENs in each country.
- Establish a network at the regional level linking all NRENs.
- Connect the regional network to the global scientific research networks.

1.2 History and current status (as of August 2010)

The first intention of forming the Consortium of Arab Mediterranean Research and Education Networks (CAMREN) was first declared in 2006 by the 7 Arab partners of the EUMEDCONNECT project that connect over 2 million academic users and researchers in 400 research centres and educational establishments. The partner countries, Algeria, Egypt, Jordan, Morocco, Palestine, Syria, and Tunisia, are represented by their national research and education network organisations (NRENs) and co-finance the network infrastructure and management costs, a substantial investment of around 1.5 million euros each year.

In December 2009 the idea is refined and the proposed new regional association is now the Arab States Research and Education Network (ASREN), under the patronage of the League of Arab States and the United Nations Global Alliance for ICT and Development. The lead for this has been taken by the Jordanian NREN, JUNET, and it this replaces the CAMREN proposal and enables a wider participation throughout the Arab region (U.A.E. and Qatar organisations have joined the discussion process).

Since then, with the support of EUMEDCONNECT2 funded by the European Commission and managed by DANTE (UK), three strategic planning workshop have been held in Cairo (January 2010) and Brussels (March 2010) and Algiers (July 2010), to finalise all the agreements on the organisation's mission, objectives, structure and strategic plan.

A first formal announcement of the creation of ASREN was made at the EU-Med Conference on e-Infrastructures across the Mediterranean (Event 3) on March 31st 2010 in Brussels, by Dr Talal Abu-Ghazaleh, chairman of the Global Alliance for ICT and Development of the United Nations Department of Economic and Social Affairs (UN-GAID). Since then the Talal Abu-Ghazaleh Organization (TAG-Org) has been providing key technical and financial support in addition to political lobbying for the creation of ASREN.. TAG-Org is now leading the registration process of ASREN as a non-profit organization in Germany and has made all its resources available to meet the legal and financial requirements for a legally registered ASREN in Europe and operational in the Arab region.

In July 2010, His Excellency Mr. Amre Moussa,. Secretary General of the League of Arab States, endorsed the creation of ASREN, and announced the formal ASREN Launching Event to be held under the League of Arab States aegis in December 2010 in Cairo, Egypt. Also several regional bodies as the League of Arab States Secretariat Department in charge of Science and Research, the Arab Education, Science, Culture Organization (ALESCO) and the Arab Union of Scientific Research Councils were invited to join ASREN.

The creation process is aimed at finalising all arrangements, the legal registration, hiring a CEO and select secretariat location, during a fourth strategic planning workshop, to be held in Rome in November 2010, and to prepare for the formal launch of ASREN in Cairo on December 8th 2010.

1.3 ASREN Definition

Arab States Research and Education Network (ASREN) is the association of the Arab region National Research and Education Networks (NRENs) and strategic partners, that aim to implement, manage and extend sustainable Pan-Arab e-Infrastructures dedicated for the Research and Education communities and to boost scientific research and cooperation in member countries through the provision of world-class e-Infrastructures and E-services.

It will be a registered, non profit[1], legal entity owned by the Arab National Research and Education Networks NRENs and partners..

1.4 ASREN Vision statement

Pan-Arab collaborative research and education projects and activities, contribute to boost the scientific research, innovation and education levels in the Arab countries by uplifting efficiency and productivity of research and education communities.

1.5 ASREN Mission statement

To implement, manage and extend sustainable Pan-Arab e-Infrastructures dedicated for the Research and Education communities and to boost scientific research and cooperation in member countries through the provision of world-class e-Infrastructures and E-services.

1.6 ASREN Objectives

The objectives of ASREN are defined as:

- **To build, maintain and consolidate regional e-Infrastructures dedicated to e-Science and education across the Arab Countries, by**
    1. Developing, managing and operating a regional network that Interconnect the NRENs of the Arab Countries
    2. Promoting harmonization of policies and standards in relevant areas at regional level.
    3. Advocating at the regional level amongst decision makers and stakeholders

- **To contribute to create and sustain National Research and Education Networks (NRENS) by**
    1. Supporting them to implementing leading-edge technological solutions while pursuing cost-effectiveness
    2. Favouring the exchange of expertise and best practices amongst the NRENs' personnel in the Region

- **To facilitate the collaboration and cooperation among the researchers and academicians in the Arab region by:**

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[1] Any operational financial surplus will be reinvested and never distributed to shareholders

1. Increasing the availability and accessibility of knowledge resources for students and researchers
2. Promoting the development of Arabic contents and their availability
3. Facilitating knowledge exchange and transfer processes across the region and with relevant partners in Europe and worldwide
4. Promoting the adoption and usage of e-Infrastructures and services among the scientific community, also through training and tutoring activities
5. Strengthening regional partnerships and encouraging joint scientific research at all levels.

2 ASREN areas of intervention

2.1 ASREN core functions

The core functions of ASREN are related to
- **Interconnection:** Interconnect the NRENs and managing technical and financial resources to manage the regional network infrastructure
- **Network management of regional network:** that includes design topology, tendering and managing NRENs interconnection, monitoring traffic and providing technical support and training to member (NRENs), etc
- **Commercial and financial management** of regional network, as managing contracts with network suppliers managing agreements for collecting funds from NRENs, managing contracts with funding organizations or agencies and conducting advocacy activities
- Developing **Regional guidelines** as for security policy or interoperability of services and protocols for supporting applications

2.2 Support Functions

These equally important support functions are related to develop the use and impact of the infrastructure, promoting c**ontent and usage development** through the establishment the Research Gateway (Portal) and enabling cross national networks use of research and educational resources available. Also includes **promotional activities to** promote collaboration in research and education community, encourage and support the joint projects, sensitize decision makers on the research networking usefulness, develop support groups of practice, research and education communities, and promote cross network cooperation in electronic services, applications and e – services. **Also ASREN will develop NREN development support actions, by** encouraging and supporting establishing sustainable NRENs, organising training and developing technical capacities to operate these networks, among other.

3 ASREN governance and organisation

ASREN General Assembly

Full members: Arab National Research and education Networks (NRENs)
Research Ministries / High Research Councils (or similar); national and regional
Research Support Organisations (RSOs): Associated Organisations (AOs)

Observers/non voting members: Industry and other Organizations
related to research and education in the Arab region

appoints

presided by a — Honorary President

Technical advisory Committee

Science and Research advisory Committee

elects

advises and support

Board of Directors composed of 4 NRENs and 3 RSOs/AOs

selects

President of the board

Special board adviser (external)

appoints and supervise

advise as requested

ASREN Executive Director

special projects staff and consultants

appoints and supervises

Administrative staff

Technical Staff:
- Training Manager
- Technical Manager
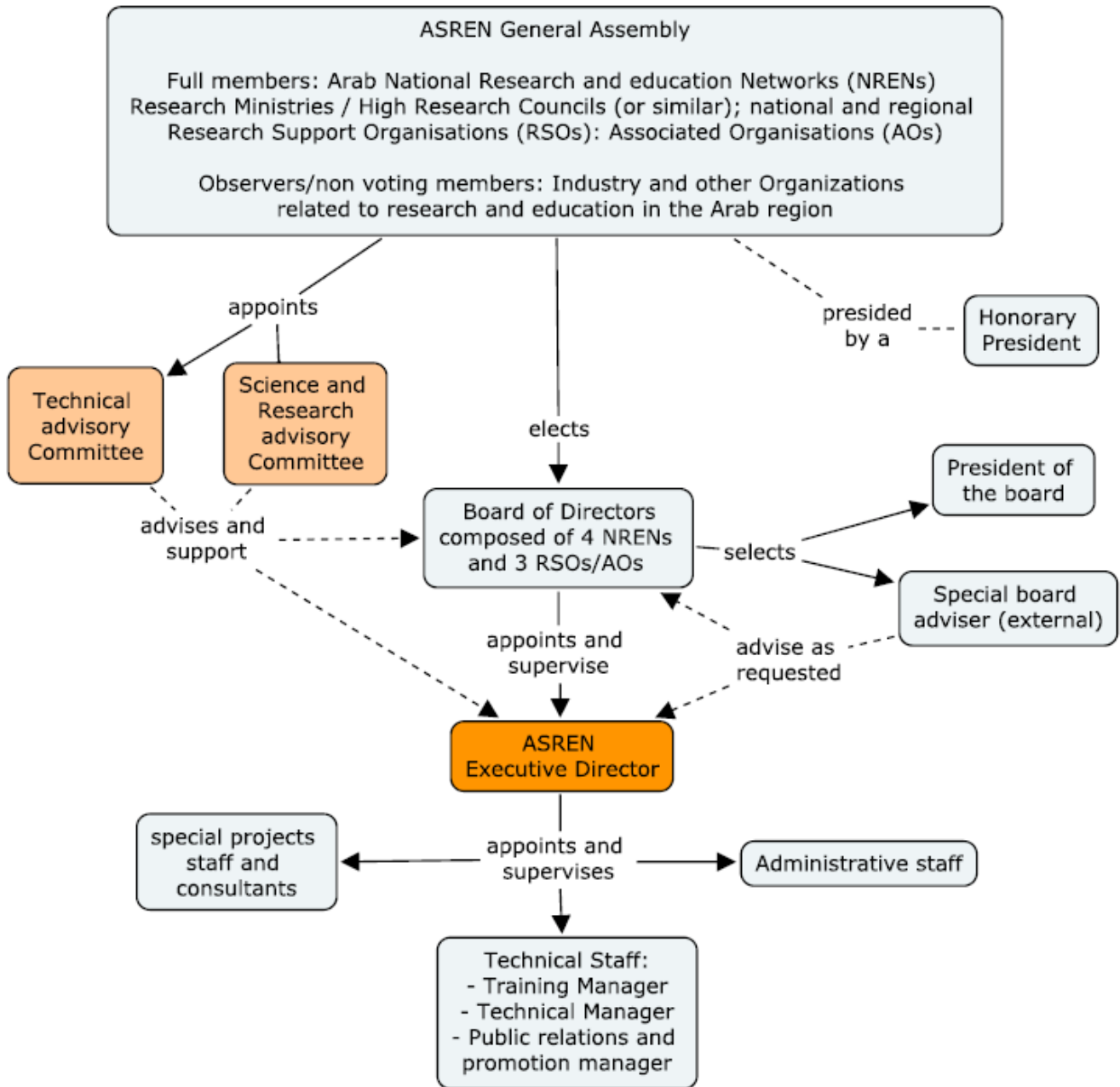- Public relations and promotion manager

Figure 1: Proposed Governance and Structure

3.1 General assembly and membership categories

The ordinary General Assembly **meets at least once every 2 years,** to review and **approves** the long term strategic plans, secretariat choice/location, activity and financial reports, and all matters related as described in the ASREN bylaws.

The main decision making body is the ASREN **General Assembly of Members composed** of **full/voting members** that are either

– The **Arab National Research and Education Networks (NRENs)** or organisations that have same functions… Where a NREN does not exist the **Research and Higher Education Ministry or the countries High Research Councils** if it has a project or interest in creating a national NREN

– **Research Support Organisations:** National and regional organisations that support Science Education and Research applications using the ASREN network and services

– **Associated Organisations**, key partners that are investing and supporting ASREN creation and expansion[2] (with significant resources), or that strengthen ASREN strategic objectives and sustainability, to be approved by the General Assembly case by case.

Full members are all eligible and vote for all board members

Non-Voting Members: Other national or regional organizations, industry and partners, related to research and education in the Arab region or interested in ASREN;

Non-voting members should be not only observers, they should be able to contribute in all aspects except voting i.e. file motions and make proposals.

3.2 Honorary Presidency of ASREN

The General Assembly nominates a distinguished candidate based on services to education and research in the region, where he will be recognised with an award and offered **Honorary Presidency of ASREN** for his work. This award and presidency can be bestowed upon a appropriate candidate every 2-4 years. The criteria and guidelines in choosing this candidate need to be set by the GA as part of the organisations bylaws.

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[2] contributions from associated members made directly to a project or a group of member (example, a private company subsidises connectivity or hardware for one or several NRENs) that reduces overall ASREN costs (note: look internet 2 phrasing)

3.3   Board of Directors

The General Assembly **elects a Board** of Directors from its members for a 2 year mandate;

- The board is composed **of 7 members** elected by the general assembly
  - o 4 seats are reserved to NRENs (formal NRENs or institution having similar role/function of national RN network managent)
  - o 3 seats are reserved Research Support Organisations and Associated Organisations
- All **members of the General Assembly vote** for both kinds of board seats
- To be **eligible**, non founding members have to be members for at least one year
- The Board will **elect the president of the Board** (a honorary position) among its members
- The Board who will review **and approve major projects and programs**
- The Board will appoint an **Executive Director**, or CEO, who will run the organisation and report back

3.4   The Advisory Committees

General assembly will establish 2 committees:

- **Technical Committee** formed and headed by NRENs who will advise the Board on technical matters and network expansion/management, and support the executive branch in its functions.
- **The Science and Research Committee,** headed by Research Support Organisations, composed by a selection of all categories members, to advise the board and the executive on matters and issues related to network usage and research activities, including promotion, survey, support of applications and users/researcher communities over the network.

3.5   ASREN Secretariat

An independent ASREN secretariat should be established in one of the member countries.

If hosted within the premises of an established NREN, a clear agreement ensuring independence and collaborative synergies should be signed.

3.6   **ASREN funding**

ASREN funding to cover normal operations and its projects will come from

- Members fees and contributions from the Member States

- Donations and contributions and collaboration from International Donors, and Sponsoring Private Entities

- Specific project and programme funding from Development Agencies, National or Regional budgets, and Governments

- Special contributions from members for specific services, projects and products

- Contributions from associated members made directly to a project or a group of member (example, a private company subsidises connectivity or hardware for several NRENs or NRENs partner) that reduces overall costs (note: look internet 2 phrasing)

The EUMEDCONNECT2 project, funded by the European Commission, and the TAG group, a private company, have both expressed commitment in supporting some of the initial costs of the ASREN creation, ensuring its birth until it can fundraise and manage its projects and strategic plan implementation.
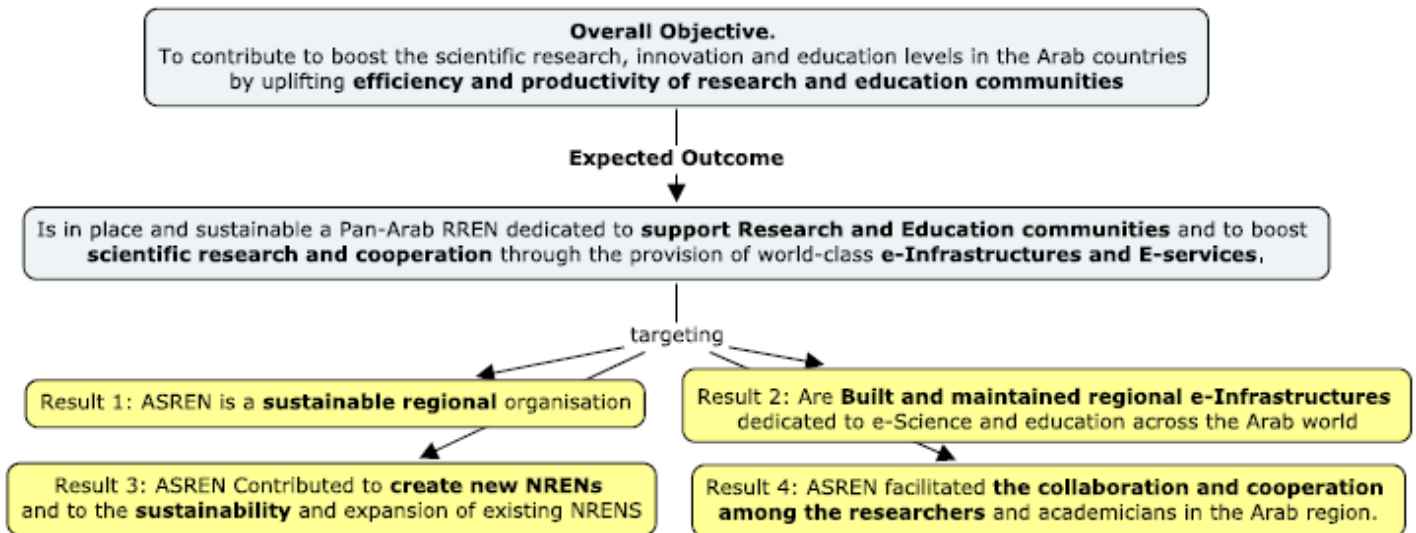
4   nitial presidency, board and committee composition (2010-2012)

The founding members agree to

- To nominate and invite League of Arab States Secretary General to be Honorary President of ASREN

- To invite Dr. Talal Abu Ghazaleh to chair the board for at least first 2 year full term, in his UNGAID chair capacity

- To offer a seat of the board of directors to the TAG organisation as an Associated Organisation which has been making significant contributions to the creation of ASREN

- To offer further board seat to the League of Arab States Education and Scientific Research Department

- To invite the Arab Education, Science, Culture Organization (ALESCO) and the Arab Union of Scientific Research Councils to take a lead in the Science and Research Committee

- To select DANTE's current EUMEDCONNECT2 project manager, as the special ASREN executive board advisor

Detailed governance mechanisms will be determined by the Articles of Association of the ASREN organisation in accordance with these principles in Sections 3 and 4. The Articles will include   provisions   for   members   to   join   ASREN   after   its   initial   formation.

5   ASREN Strategic Plan (2011-2015)

Overall Objective.
To contribute to boost the scientific research, innovation and education levels in the Arab countries by uplifting **efficiency and productivity of research and education communities**

Expected Outcome

Is in place and sustainable a Pan-Arab RREN dedicated to **support Research and Education communities** and to boost **scientific research and cooperation** through the provision of world-class **e-Infrastructures and E-services**,

targeting

Result 1: ASREN is a **sustainable regional** organisation

Result 2: Are **Built and maintained regional e-Infrastructures** dedicated to e-Science and education across the Arab world

Result 3: ASREN Contributed to **create new NRENs** and to the **sustainability** and expansion of existing NRENS

Result 4: ASREN facilitated **the collaboration and cooperation among the researchers** and academicians in the Arab region.

5.1   Strategic plan Overall Objective.

To contribute to boost the scientific research, innovation and education levels in the Arab countries by uplifting efficiency and productivity of research and education communities.

5.2   Strategic plan expected results

The overall expected result of the strategic plan implementation is that after 3 years, is in place and sustainable a Pan-Arab Research and Education Network dedicated to support Research and Education communities and to boost scientific research and cooperation through the provision of world-class e-Infrastructures and E-services.

More specific result, after three years, are that:

- **Result 1:**   ASREN is a sustainable regional organisation
- **Result 2:**   Are Built, maintained regional e-Infrastructures dedicated to e-Science and education across the Arab Countries
- **Result 3:**   ASREN contributed to create and sustain NRENS
- **Result 4:**   ASREN facilitated the collaboration and cooperation among the researchers and academicians in the Arab region

In the next pages is presented the top part of the strategic plan logical framework, which is currently being refined. It outlines some of the indicators and assumptions.

5.3 Strategic plan logical framework intervention logic

Intervention Logic		Objectively verifiable indicators[3]	Sources of verification	Risks & Assumptions
Overall Objective. To contribute to boost the scientific research, innovation and education levels in the Arab countries by uplifting efficiency and productivity of research and education communities.		- after 3 years , there is a 20% increase in the number of **collaborative research and education projects between public research institutions across the Arab region network**	- NRENS will get data from the Research ministries, - ASREN will compile statistics	- supportive research policies from government and universities, - enabling framework: cooperation programs in the universities successful lobbying efforts to conform the ASREN
Is in place and sustainable a Pan-Arab RREN dedicated to support Research and Education communities and to boost scientific research and cooperation through the provision of world-class e-Infrastructures and E-services.	**• R1 ASREN is a sustainable regional organisation**	- After 9 months ASREN has **completed incorporation process** has executive staffs contracted within a partner offices. - After a year the **Technical Committee, NOC and NEG[4] are in place** and produced their own work plans and are implementing it. - After 3 years **funding** (non EC) is committed to cover 100% ASREN's operations costs and all activities.	- Project reports	- Long term financial support and Commitment of ministries (not affected by governmental changes)
	• R2 Are Built, maintained regional e-Infrastructures dedicated to e-Science and education across the Arab Countries	- After 2 years **5 Arab NRENS are interconnected[5]**. - After 3 years **8 NRENs are interconnected**, rationalising the use of direct connections from members to GEANT and TIEN	- Project reports	- Enabling regulatory environment and public policies (if study and project require ASREN to manage backbone connectivity) - cost of bandwidth does not rise or lowers as telecom capacity grows (competition)
	• R3 Contributed to create and sustain	- After 2 years ASREN has provided support to create **new NRENS** in at least 3 countries technical support.	- Project reports on NRENS feedback reports on support	- There are opportunities to obtain funding for new and existing NRENs (national)

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[3] this are only few indicators for each result, not all the activities outcomes have to be measured in the log frame
[4] NOC = Network operation centre, NEG= Network engineering group
[5] the feasibility of reaching this indicators will be confirmed by the interconnectivity study

Intervention Logic		Objectively verifiable indicators[3]	Sources of verification	Risks & Assumptions
	NRENS	- After 2 years aprox. **25 technical staff** of the NRENs have been trained (technology areas HSN, routing) - After 3 years, 5 NRENS have initiated projects with other NRENS thanks to ASREN support (participation in event, membership fees, negotiation etc)	received	
	• **R4 facilitated the collaboration and cooperation among the researchers and academicians in the Arab region.**	- After 1 year at least **2 user forum/events for boosting collaboration** among researchers and academics, teachers, have been organised by ASREN, 4 after year 2 (in specific areas- co organised with other organisations) - After year 1`the **guidelines for interconnection and interoperability of e-services (offered by the NRENs)**) have been developed (with collaboration of all NRENS) and approved, and they are being implemented during year 2. - After 3 years at least **2 e-content services projects** have been initiated by ASREN	Project reports	- enough useful content, end users buy in the projects - enough bandwidth and quality available - researchers capacity for getting funding for Arab- Arab research projects - collaboration of thematic regional organisations (support research)

5.4 General Budget

(in euro)

General budget	unit	unit cost	Year 1	Year 2	Year 3	total	% of budget
staff (gross salaries including all benefits to be paid by employer as taxes – social security etc. – calculated on 13 salaries per year)			**162,250.00**	**178,750.00**	**178,750.00**	**519,750.00**	**6.40%**
Executive director CEO	month	5,500.00	71,500.00	71,500.00	71,500.00	214,500.00	**2.64%**
technical director (only 10 months first year)	month	3,000.00	33,000.00	39,000.00	39,000.00	111,000.00	**1.37%**
PR and training director (web and networking savy) (only 10 months first year)	month	2,250.00	24,750.00	29,250.00	29,250.00	83,250.00	**1.03%**
Assistant / secretariat	month	1,500.00	16,500.00	19,500.00	19,500.00	55,500.00	**0.68%**
accounting/admin (only 10 months first year)	month	1,500.00	16,500.00	19,500.00	19,500.00	55,500.00	**0.68%**
Recurrent office costs			**128,000.00**	**128,000.00**	**128,000.00**	**384,000.00**	**4.73%**
office space rental	month	3,000.00	36,000.00	36,000.00	36,000.00	108,000.00	**1.33%**
bank charges, auditing, ongoing legal costs	year	20,000.00	20,000.00	20,000.00	20,000.00	60,000.00	**0.74%**
administration and overheads (all included - everything to run office)	month	3,000.00	36,000.00	36,000.00	36,000.00	108,000.00	**1.33%**
conference, hospitality,		1,000.00	12,000.00	12,000.00	12,000.00	36,000.00	**0.44%**
staff travel and perdiems	month	2,000.00	24,000.00	24,000.00	24,000.00	72,000.00	**0.89%**
meetings of the ASREN organisation			**30,000.00**	**30,000.00**	**30,000.00**	**90,000.00**	**1.11%**
general assemblies (1 a year)	per meeting	20000	20,000.00	20,000.00	20,000.00	60,000.00	**0.74%**
board meetings (3 a year)	per meeting	10000	10,000.00	10,000.00	10,000.00	30,000.00	**0.37%**
activities			**1,715,000.00**	**2,710,000.00**	**2,700,000.00**	**7,125,000.00**	**87.76%**
Activities for result 1: ASREN is a sustainable regional organisation	details in the table below		35,000.00	.00	.00	35,000.00	**0.43%**
Activities for result 2 Build, maintain e-Infrastructures …			1,345,000.00	2,370,000.00	2,370,000.00	6,085,000.00	**74.95%**
Activities for result 3 Contributed to create and sustain NRENS			235,000.00	200,000.00	255,000.00	690,000.00	**8.50%**
Activities for result 4: facilitate the collaboration and cooperation			100,000.00	140,000.00	75,000.00	315,000.00	**3.88%**
TOTAL			**2,035,250.00**	**3,046,750.00**	**3,036,750.00**	**8,118,750.00**	**100.00%**

5.5 Activities detailed budget

Activities		resource plus	specific budget	quantity	c/u	total	Year 1	Year 2	Year 3
ACT 1	Activities for result 1: ASREN is a sustainable regional organisation					35,000.00	35,000.00	.00	.00
ACT1.0	Register ASREN	ASREN St Group	Registration cost	1	25000	25,000.00	25,000.00		
ACT 1.1	Finalise Legal creation process	Exec. Dir	legal costs	1	10,000.00	10,000.00	10,000.00	.00	.00
ACT 1.2	develop its detailed implementation work plan	Exec. Dir	nothing additional	0	.00	.00	.00	.00	.00
ACT 1.3	Select and hire staff	Exec. Dir	nothing additional	0	.00	.00	.00	.00	.00
ACT 1.4	Finalize ASREN internal administration procedures and rules, membership rules and duties, charter, etc.	Exec. Dir	nothing additional	0	.00	.00	.00	.00	.00
ACT 1.5	Create Technical committee, NOC and NEG and develop its working plans	Exec. Dir and board	nothing additional	0	.00	.00	.00	.00	.00
ACT 1.6	Develop specific projects and manage its funding	Exec. Dir and staff	nothing additional	0	.00	.00	.00	.00	.00
ACT 1.7	ASREN participation in international forum and regional arenas	Exec. Dir and staff	nothing additional	0	.00	.00	.00	.00	.00
ACT 2	Activities for result 2 Build, maintain and consolidate regional e-Infrastructures dedicated to e-Science and education across the Arab Countries					6,085,000.00	1,345,000.00	2,370,000.00	2,370,000.00
ACT 2.1	Conduct a detailed study on the existing and planned connectivity and interconnections for all Arab countries (6 months) and other external support	exec. Dir and tech director	consultancies	3	50,000.00	150,000.00	50,000.00	50,000.00	50,000.00
ACT 2.2	technical board meetings (adtinal to other meetings)			12	5,000.00	60,000.00	20,000.00	20,000.00	20,000.00
ACT 2.3	Common strategy adopted by the NREN for their network expansion	exec. Dir and tech director and board	nothing additional	0	.00	.00	.00	.00	.00
ACT 2.4	current interconnection costs (month 6 to 12)	exec. Dir and tech director		1	1,200,000.00	1,200,000.00	1,200,000.00	.00	.00
ACT 2.5	equipment (routers)	exec. Dir and tech director	estimated costs	1	150,000.00	150,000.00	50,000.00	50,000.00	50,000.00
ACT 2.6	network management (outsource) and help desk	exec. Dir and tech director	outsourcing or staff	1	125,000.00	125,000.00	25,000.00	50,000.00	50,000.00

ACT 2.7	Interconnect first ring (5 networks) of interconnections	exec. Dir and tech director	estimated costs	1	2,400,000.00	2,400,000.00	.00	1,200,000.00	1,200,000.00
ACT 2.8	Expand interconnection to other members	exec. Dir and tech director	estimated costs	1	2,000,000.00	2,000,000.00	.00	1,000,000.00	1,000,000.00
ACT 3	**Activities for result 3 Contributed to create and sustain NRENS**					675,000.00	235,000.00	200,000.00	255,000.00
ACT 3.1	Study NRENs state of the art (Dec 2010) benchmarking and best practices	exec. Dir and traintng director	consultancies	2	50,000.00	100,000.00	50,000.00	.00	50,000.00
ACT 3.2	Organise and implement a technical cooperation activities that includes								
ACT 3.3	Create and facilitate an on-line forum that connects the administrators or NRENs / sharing documents / daily exchanges information and P2P assistance	PR and training director	nothing additional	0	.00	.00	.00	.00	.00
ACT 3.4	Disseminate success stories / best practice in the field of network technology developing ASREN newsletter and conducting case studies)	PR and training director	nothing additional	0	.00	.00	.00	.00	.00
ACT 3.5	Organise annual meetings for task forces and working groups,	PR and training director	meetings	12	20,000.00	240,000.00	80,000.00	80,000.00	80,000.00
ACT 3.6	Organise and implement a technical training program (with trainers from NRENs and trainees from NRENs)	PR and training director	workshops	6	20,000.00	120,000.00	40,000.00	40,000.00	40,000.00
ACT 3.7	e-learning between NRENs – NREN acdemy	PR and training director	tutors and mentor	3	5,000.00	.00	5,000.00	5,000.00	5,000.00
ACT 3.8	Provision for advocacy and promotion activities towards policy makers, general public,	PR and training director	promotion costs	1	60,000.00	60,000.00	20,000.00	20,000.00	20,000.00
ACT 3.9	An exchange program (between NRENs) for the NREN staff	PR and training director	study travels	20	5,000.00	100,000.00	25,000.00	35,000.00	40,000.00
ACT 3.10	Encourage (support, motivate) participation of Arab NRENs with international cooperation projects	PR and training director	nothing additional	0	.00	.00	.00	.00	.00
ACT 3.11	Organise and implement activities to help create NREN in countries that have not (events, develop guidelines how to build the process)	PR and training director	meetings	11	5,000.00	55,000.00	15,000.00	20,000.00	20,000.00
ACT 4	**Activities for result 4: facilitate the collaboration and cooperation among the researchers and academicians in the Arab region.**					215,000.00	100,000.00	140,000.00	75,000.00

ACT 4.1	Study to identify : The strength of each member (NREN) best practices as well as differences between them, The actual level and mechanisms of collaboration between Arab universities and research centres, The inventory of various national systems used for resource sharing, Concrete strategies and plans to enhance collaboration and cooperation among the researchers and academicians in the Arab region.	exec. Dir and training director	consultancies	1	50,000.00	50,000.00	50,000.00	.00	.00
ACT 4.2	Develop and implement mechanisms, standards and procedures to Make compatible e-systems to ensure resource sharing Make research libraries interconnected & interoperable	exec. Dir and tech director	consultancies (provision)	1	50,000.00	50,000.00	.00	50,000.00	.00
ACT 4.3	Establish E-learning pool between Arab universities (repository common contenst across the region – seed budget)	PR and training director	consultancies	1	15,000.00	15,000.00	.00	15,000.00	.00
ACT 4.4	Organise activities (events) and online tools to interconnect educational and research institutions in strategic area such as: Environment, Water management, Medicine, Culture heritage and Energy…. Enable matchmaking among researchers and their projects	PR and training director	events support / matchmaking	10	10,000.00	100,000.00	50,000.00	75,000.00	75,000.00

5.6 Possible budget funding sources (not committed)

In euro

	total	Year 1	Year 2	Year 3	% source
capital injection and donations (e.g. TAG and/or other cash or in-kind contributions)	210,000.00	70,000.00	70,000.00	70,000.00	**2.59%**
Eumedconnect 3 project (EU)	3,000,000.00	1,000,000.00	1,000,000.00	1,000,000.00	**36.95%**
members fees including interconnection and other services	4,500,000.00	1,500,000.00	1,500,000.00	1,500,000.00	**55.42%**
Other project funding required for balancing budget. (Possible sources: additional partner funding, special projects, other donors and/or co funding by other projects)	410,000.00	60,000.00	100,000.00	250,000.00	**5.05%**
total	**8,120,000.00**	**2,630,000.00**	**2,670,000.00**	**2,820,000.00**	**100.00%**