



Changes implemented by USKA Switzerland
IARU R1 Workshop October 2021

how we make amateur radio fit for the future

Changes implemented by USKA (Switzerland)

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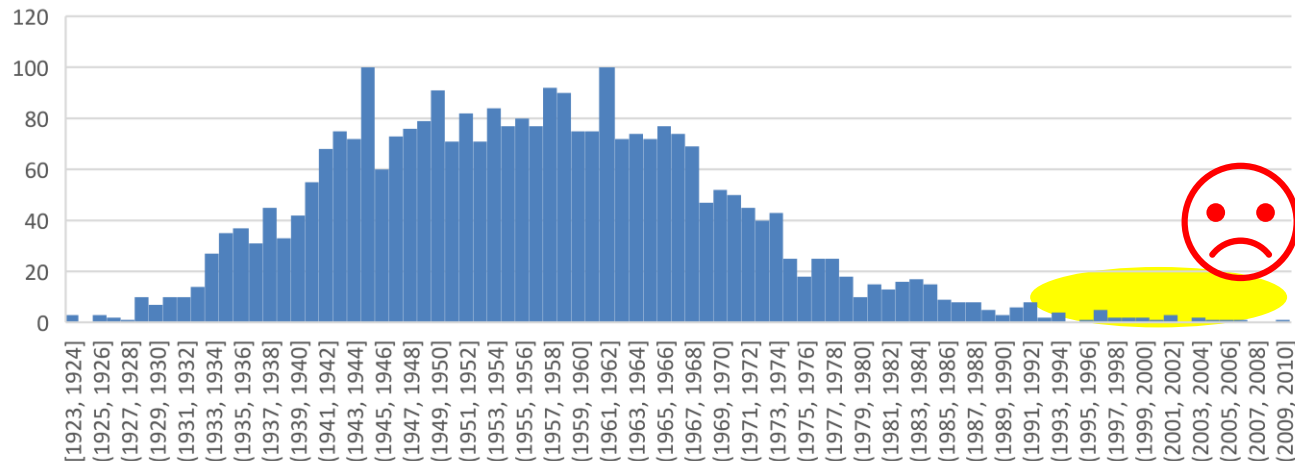
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ALARM !

Less than 1% of our members are of age 25 or younger !

Age Histogram USKA members (Switzerland)

(by year of birth, September 2021)





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Preface – to make one thing very clear

Digital Transformation changes our lives forever. **Now.**

- is **not** just using digital devices and consuming digital services instead of analogue ones. But rather:
- **For us Hams: It's about mastering the latest technologies. Everyone at the level of technical detail that they want to**
- This transformation brings **tremendous opportunities !**
Let's take advantage of it !



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1. History (abbreviated)

- 10 years of **intensive** youth work **without** noticeable result
- USKA **Strategy Meeting** 19 Oct 2019
careful analysis of the situation and the challenges,
collecting ideas, open to all our members.
- **First findings**
 - “Profile of amateur radio” has **failed to keep pace** with the rapid evolution of 21st century (I)CT technologies.
 - It is **not** in the “best interests” of youth to join **communities of old men who mostly ignore or even negate today’s ICT age** and the disruptive “Digital Transformation” it brings us.
 - Youth seek a **competent** (ham) community full of **role models**.
(in most cases, local clubs cannot offer this, the longer the less).



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2. Back to the roots !

How is “Amateur Radio” defined?

- Important definitions of “Amateur service”
 - No. 1.56 of the ITU Radio Regulations (RR) and
 - Recommendation ITU-R M.1544



We are happy that these definitions are **timeless** and, of course, always mean the **most up-to-date as well as future technologies**.

- **We have to go back to that!**

we do not have to change our technical/scientific curiosity, which is in our DNA! But we do have to change our focus to the new technologies!

- To **fail** to meet these requirements
 - threatens our “raison d’être”
 - calls into question our privileges
 - exposes us to various humiliations and disrespect in society such as we are suffering in Switzerland.



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3. our analysis

- We called into live an **USKA Study Group “Future of Amateur Radio”** consisting of selected members with proven knowledge in modern digital technologies.
Hundreds of hours were invested by it's ten to fifteen members in numerous meetings of this working group (2020-2021).

Small, competent and productive
avoiding endless discussions



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- We finalized a **new curriculum for amateur radio courses** which includes “new technologies” (i.e. **digital signals, digital signal processing, protocols, digital circuits, microprocessors, coding fundamentals, basic algorithms, networking and web technology fundamentals**), while throwing obsolete and unnecessary material overboard.
- We focused on designing a course curriculum that **prepares (young) people for modern amateur radio** including new technology, and not only to pass the license exam.
- Our Study Group completed its work and started conceiving a **pilot course**, based on “Project Based Learning” (PBL) with intense use of self-learning material borrowed from the web.
- Sorry - we cannot show respect for the syllabus of license examinations, which are 5 to 20 years out of date.



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4. Urgent need for change

- **adapt** the profile of the (junior) “radioamateur” to **modern 21st century technologies**.
- This can be achieved only by **doing** this **everywhere, at any time, in any activity** – both internally and externally.
- Build **new** communities that will **complement** old structures
- Learning about the fascinating digital technologies is **voluntary** - we don't force anyone to do it. Take it or leave it!



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5. Our Action Plan (1)

- **Create new online communities:**
Create **HamGroups.ch** (online meetings+repository) to give all STEM-interested people “**homes**” where they **focus** on their **personal** interests without being distracted from people who do not share their interests.
- **Develop and prioritise “new technologies” activities** everywhere (innovative “agenda setting” in HamWebinar.ch, in HamAcademy, in our periodical, on our websites etc).
- **Open up** to related modern technical and scientific fields, communities and organisations. Find partners. Expand our horizon. Actively seek win-win situations.



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Our Action Plan (2)

- **Project Work is fun – let's do it together online !**
Develop a **HamProjects** web platform to publish/announce “new technology” **project work ideas** and gather people who build things. Using GitHub as repository. Following both SARL's Technology Working Group proposal at IARU GC 2020 NS20_C3_Rec_07, Lisa Leenders' PA2LS advice to invite and include non radioamateurs to projects, and taking into consideration Kamal Singh's recommendations in his famous 2019 RSGB convention speech.
- All this requires web platform infrastructure and manpower.
Speed to market seems us more important than perfection.



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6. already realized (1)

increase acceptance in society

- In parallel, we invested time to restore credibility and acceptance with authorities and organisations, among these:
 - by keeping up professional work in **EMC standardisation committees** IEC, CENELEC, CIS, CISPR, TC 77
 - by having successfully convinced our national parliament to introduce a new article into **federal law**, facilitating construction of Amateur Radio antennas



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already realized (2) innovating our Ham ecosystem

- **Videoconferencing Server (BBB)**, free for members -> Meeting Places (“QRG”) for everyone/everytime/everywhere, independent of antenna, station, propagation. **Plus:** Demonstrating what modern ICT technology can achieve: Modern Communications = Video+Audio+Data fdx+realtime
- **free HamWebinar.ch** for the general public, HamAcademy with member discount (automated course admin+payment).
- **HamGroups.ch**, free for members -> build new, theme focused communities, attract new/young members with **specific modern ICT themes** (“amateur radio extended”). (where Hams meet: 25 HamGroups are already in operation)



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already realized (3)

adapt to 21st century

- Modernisation of **recommended Amateur Radio Curriculum**, **replacing** Old Technologies by New Technologies, avoiding current technical knowledge deficits of newly licensed amateurs.
- This led us to making a clear **distinction between two types of education** of radio amateurs:
 - “Amateur Radio Course”, including new technologies.
Target group: young people who want to learn something that is in their best interests.
 - “Exam Preparation Course”, containing exam material only, which is a subset of the above, but full of old stuff



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7. More is in the works

- Soon: HamProjects.ch as explained above
- Actively seek cooperations, partnerships, memberships, connections to other thematically related groupings.
- We are adjusting to the fact that we will have to buy in missing competences outside our ham community. We cannot manage change in time with internal human resources alone.
- And more to come..... (intensify external marketing as soon as our “products” are brought up-to-date!)

P.S. Please value private initiatives that aim in the same direction!

You are not alone! One example from Switzerland:

Andreas (Andy) Spiess HB9BLA - 340'000 YT-Subscribers !!!

<https://www.youtube.com/andreasspiess> (like many others ww!)



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8. If you are still thinking «no action required» then have a look at this and think about it:

- Our Zurich USKA Section HB9Z (local group) has now shrunk to just **30** members

at the same time

- the [Zurich IoT Interest Group](#) has grown to incredible **2'500** members

Still thinking «no action required» ?

(The Greater Zurich Area counts approximately 1 Mio inhabitants)



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**Thank you for your attention!
We wish you much perseverance and success in
shaping the future of our hobby!**

According to Darwin's Origin of Species, it is **not the most intellectual of the species that survives; it is **not** the strongest that survives; but the species that survives **is the one** that is able best to adapt and adjust to the changing environment in which it finds itself.**

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We are making Amateur Radio fit for the future.